
# AN EMPIRICAL INVESTIGATION INTO KNOWLEDGE MANAGEMENT IN PAKISTANI THINK TANKS

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# Abstract

Knowledge management can play a central strategic role in organisational life, potentially initiating from strategy planning to performance achievement. The continuous adjustment of organisational strategy and performance can be powerful in knowledge intensive organisations such as think tanks. Think tanks are policy research organisations, usually of small to medium size, and non-profit in nature. The Pakistani think tank 'industry' is at an important tipping point in terms of establishing knowledge 'impact' for the state and the wider society. Think tank organisations are gaining dual attention for creating awareness in society and suggesting policies to the state.

The central purpose of this research is to provide an explanation of why and how knowledge management plays a role within think tanks, especially with regards to organisations linking strategy and performance. It also seeks to provide evidence from Pakistani think tanks providing suggestions for organisational improvement that may be applicable to think tanks in other developing countries. A thorough literature review from the field of knowledge management includes knowledge, knowledge management, and the strategic relationship of knowledge management, organisational strategy and organisational performance. Specifically, the research seeks to analyse knowledge management in social sciences policy research think tanks based in Islamabad, the capital of Pakistan. The participation of eight think tanks provided access for field visits to conduct interviews, observations and document collection.

From the findings, it is recommended that consciousness towards knowledge management can highlight the natural and independent process to keep organisational strategy and performance improving continuously in a cyclic manner. Knowledge resources with Pakistani think tanks demand proper recognition and valuation, as they are potentially being worth more compared to material resources. Amongst the knowledge resources, cultural values and norms, multilingual skills, 'friendly' internal environments and leadership are found to be important. The strength of Pakistani think tanks is in their Relational Capital, which they appear to be utilising. Informal-Tacit knowledge management practices are highlighted more in the context, though gaps do appear to exist for formal practices. It is suggested that think tanks could further enhance real visibility through their Relational Capital and making use of tacit informal practices leading to friendly, multilingual and effectively leadership cultures with positive values. Think tanks have the potential to help provide solutions during turbulent times, both leading and managing knowledge – effecting a positive impact upon both state and society.

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## List of abbreviations and acronyms

| | |
|---|---|
| ACR | Annual confidential report |
| CIPS | Centre of International Peace and Security |
| CRSS | Centre for Research and Security Studies |
| CoP | Community of practice |
| CBV | Competence based view |
| HC | Human capital |
| HR | Human resource |
| IPS | Institute of Policy Studies, Islamabad |
| IRI | Islamic Research institute, Islamabad |
| IRS | Institute of Regional Studies, Islamabad |
| ISSI | Institute of Strategic Studies, Islamabad |
| ISSRA | Institute of Strategic Studies, Research & Analysis |
| KBV | Knowledge based view |
| KM | Knowledge management |
| KR | Knowledge resources |
| MoU | Memorandum of understanding |
| NGO | Non-governmental organisation |
| NPO | Non-profit organisation |
| OP | Organisational performance |
| OS | Organisational strategy |
| PIDE | Pakistan institute of development economic |
| R&D | Research and development |
| RBV | Resource based view |
| RC | Relational capital |
| SME | Small and Medium Enterprise |
| SC | Structural capital |
| TT | Think tank |

"In the name of Allah (God), the Most Gracious, the most Merciful"

## Acknowledgements

I have desire but unable to express my obligations to my ALLAH -“who has full knowledge of everything” (the Quran 5:97). It would not be possible to initiate and keep the process of doctoral research without the encouragement and support of my parents and siblings. My father’s financial and social courage strengthened me to make it possible. It was not an easy decision to opt for doctoral research abroad and colleagues and seniors who encouraged should be appreciated. I am thankful to my life circumstances for providing opportunities and keeping me safe from the hardships. Instinctual hunch about the choice of supervisor proved through grit. Throughout the PhD journey the challenge to keep up with the toughest supervisors remained there with prestige that they only choose the best candidates. I am thankful to my main supervisor Professor David Bamford for consistant support, highligting strengths, keeping track, helping to meet targets and providing motivation. I am grateful to co-supervisor Professor Jawad Syed who joined mid way, providing enough challenges for thought appetite, learning and academic opportunities. It should not be fair if I do not acknowledge the contribution of a previous co-supervisor Dr. David Higgins, who left the university in second year of my research. Specifically he inspired me through his philosophical approaches towards research and knowledge management. The dream of PhD was borrowed by a workmate Shakil Imran Badar who provided confidence and cheerful thoughts over jammed moments. I am thankful for his facilitation throughtout the process at different stages. I owe a thanks to my uncle Dr. Shahid Mahmood, whose guidance and review on my drafts remained alongside throughout the process. It would be a lie if I say the doctoral journey was alone but many colleagues were beside. I am thankful to Dr. Fariha Choudhury whose support was worthy during first year at huddersfields. Hudderfield Pakistani community deserves recognition for taking care of guests. Why should I not be thankful to all my near ones as my thoughts are bound for their respect.

Well-wishers said doctorate is my destination; I want to say that it is where the journey begins.

## List of publications

Javed, S., Bamford, D. & Syed, J. (2017). An empirical investigation of knowledge management in Pakistani think tanks. In *'Developing qualitative/conceptual research into top management journal articles and becoming job market ready',* Sep 11-12, Liverpool, UK.

Javed, S., Bamford, D. & Syed, J. (2017). An empirical investigation of knowledge management in Pakistani think tanks. In *NARTI Annual Doctoral Conference* 2017, Jun 6-7, Newcastle, UK.

Javed, S., Bamford, D. & Syed, J. (2017). An empirical investigation of knowledge management in Pakistani think tanks: knowledge services and policy innovation. In *Service Innovation in Emerging Economies 2017*, Jan 25-26, Loughborough, UK.

Javed, S., Bamford, D. & Syed, J. (2017). An empirical investigation of knowledge management in Pakistani think tanks. *At Business school research conference 2017*, Jan 11-13, Huddersfield, UK.

Javed, S., Bamford, D., & Syed, J., (2016). An empirical investigation into knowledge management in Pakistani think tanks. *In: ASB Conference 2016,* 21 Oct-23 Oct 2016, Halifax, Canada.

Javed, S., Bamford, D., & Syed, J., (2016). An empirical Investigation into knowledge management in Pakistani think tanks. *In: NARTI Conference 11th annual doctoral conference 2016*, 13 Sep-14Sep, Sheffield, UK.

Javed, S., Bamford, D., & Syed, J., (2016). Think Tank Organizations: A Knowledge Bridge Connecting State and Society. *In: BAM Conference 2016,* 6 Sep-8 Sep 2016, Newcastle, UK.

Javed, S., Bamford, D., & Syed, J., (2016). Knowledge management, organisational strategy and organisational performance in Pakistani think tanks. *In: Loughborough doctoral colloquium 2016*, Jan 28, 2016, Loughborough, UK.

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# Chapter 1 : Introduction

## 1.1. Introduction

The present research intends to develop a knowledge management model for Pakistani think tanks. The model deals with three concepts, which are: organisational strategy (OS), knowledge management (KM) and organisational performance (OP). These three constructs have rarely been discussed together in the literature, although the debate on the relationships between these constructs is not naïve (Rasula, Vukšić, and Štemberger, 2012). The present study will use knowledge based theory to review these three constructs as a whole, to bring further clarity to the relationship and improve quality of organisational life. The study involved collecting empirical data from eight think tanks (TT) in Pakistan, through a vast set of interviews, observations and document analysis. Thematic analysis has been used to draw the systematic findings from the transcripts. The findings confirm the relationship of OS, KM and OP in a continuous cycle, i.e. all three need continuous adjustment in regards to each other, in the present fast changing world. The organisations must manage their knowledge, i.e. an organisational journey, which starts from OS to reach OP, needs to be accompanied by KM to achieve their motives. The triad relationship carries high importance for knowledge intensive organisations and is important for think tank organisations, since it serves as a bridge between state and society (Perez, 2014). The consideration of KM by Pakistani TTs would be the first step for the nation to enter into the knowledge era. The present research will contribute theoretically and practically by presenting a KM model for think tanks, specifically in the context of Pakistan.

## 1.2. **Study background**

Mankind is at the entrance of what can be referred to us the ‘knowledge era’, where we have passed the information and data era. The realisation of ‘knowledge’ as an undeniably important resource and the increased struggle for the ‘survival of the fittest’ has resulted in the need for knowledge management. KM is among the top goals of world organisations for the future and receives particular attention whenever national level long term plans as far as 2020, or 2050 are discussed. Developing countries are still lacking behind other countries in embracing knowledge management and require considerable effort to adapt and enter the future ‘knowledge era’.

Steyn and Kahn (2008) acknowledge the absence of qualitative and quantitative research into knowledge management practices, specifically within public sector social science research organisations. Think tanks (policy oriented research organisations) have enjoyed massive growth in the first decade of the 21st century (McGann, 2011). Sayed (2012) refers to TTs as engines of developing policies and institutionalising decision-making, ultimately developing the national knowledge culture. Pakistan is not in need of revolution, or evolution, but the required change must have KM at its centre. This centre might comprise of a think tank network. Stronger TTs and coalitions, result in KM moving towards the pillars of human society: politics, economy, religion and society itself. Following the view of Nonaka (2007), who stated that ‘knowledge invention by an individual, re-invent themselves, company and worlds’, a knowledge inventing organisation would have a clear impact on society and will play a major role in shaping that same society. Thus, a need arises to make these think tank organisations perform better.

Most of the contemporary research in the field of knowledge management, is about context, where KM program is implemented (Durst and Edvardsson, 2012). The

present study takes into account an awareness level of knowledge management, with no explicit KM program. The second challenge faced by this study is to capture the informal KM practices, an area which a few studies had presented empirical findings (Zack, McKeen and Singh, 2009). Third challenge this study engages with is to present large scale empirical data from 8 case organisations, with vast numbers of participating individual, utilising triangulated methods. The main challenge for the study is to bring clarity and limpidity to the black box relationship of KM and OP (Chang and Ahn, 2005). The study develops the view that KM has the power to control OP and keep it aligned with an organisational strategy. This introduces the relationship between KM and OS, which demands an explanation (Chourides, Longbottom and Murphy, 2003). Strategy itself is the outcome of knowledge management and a developmental strategy demands improved KM (Mills and Smith, 2011). An increased consciousness surrounding KM and the deliberate use of knowledge management will lead to improved operations and performance, which is the general assumption behind the research. Another assumption, which emerged at the start of the research, was the strategic position of knowledge. However, these assumptions have taken a stronger position during the completion of the study.

### 1.3. **Study motivation**

The researcher believes that social improvement could be brought about if each individual had the realisation of utilising him/herself to the best of their ability. The main source of motivation for the study is the urge of the researcher's self-actualisation, which was encouraged by the circumstances surrounding the research itself. An increasing confidence in groups of individuals, who are formally organised as think tanks, with the aim of social improvement through research and fulfilling their duty for

knowledge, provided the focus for the study. Having a formal position in a TT, participating from an operational to a strategic level, the struggle of limited material resources, learning from a knowledgeable community, enjoying the mesmerizing bond, and experiencing the lack of management, all provided a grounded understanding in the subject. The intention was to improve the organisation, with the belief that it could play a positive role for society. Several dimensions were considered and experimented with to bring about the required improvement. These efforts resulted in some improvements, but were not satisfactory, considering the motivation behind the efforts. The main emphasis remained on technological advancement, with the assumption that it has the most impact. The limitations of human resources were linked back to financial resources and the availability of human resources. In searching for a solution and with a desire to convince the leaders about the required changes, the researcher started exploring knowledge management in think tanks. To bring some authenticity to the assumption that knowledge management could prove a solid solution for Pakistani think tanks, the idea behind conducting a PhD study came to fruition.

## 1.4. **Study Rationale**

The present study is situated between the confluence of two significant areas of inquiry: (1) think tank organisations, specifically in developing countries, and (2) strategic knowledge management relationships. Yesterday's world reflected the thoughts of industrialization, urbanization, empires and colonization, pyramidal hierarchies and societies, and certainties. These trends are changing for tomorrow's world. Having come from the goods industry of the past, we are relying on a service industry today, which is inclined towards intellectual services in future (Goux-

Baudiment, 2009). Furthermore, the lack of a multidisciplinary approach and critical thinking had left knowledge producing institutes, such as educational institutions, research and development organisations, and think tank organisations, in crisis, creating deprivation, exactly at the birth of the knowledge economy. Goux-Baudiment (2009) strongly argues that developing countries take outdated ideas from the developed world, which may not suit their context, leaving them with a greater challenge to enter the knowledge era. She suggests that scientifically grounded think tanks may help to improve the efficiency of public policies, which can prove to be a perfect place for partnerships on local, regional and global levels, and create integration on the basis of mutualisation, as well as distribution. With her suggestion of creating third generation think tanks in developing countries, she identified a fundamental challenge for both intellectual and knowledge production. Few countries have the appropriate structure for think tanks organisations, and Pakistan is one of them. Think tanks in Pakistan observed increased growth in the late 2000s (Zaidi, 2013). Furthermore, companies acquire competitive knowledge if they know how to handle knowledge internally and externally (Schulz and Jobe, 2001).

This research project evolved from the researcher's experience working at a think tank, which she had joined to enthusiastically contribute to society through research. The researcher served (2007-2012) at multiple strategic positions, gained organisational insight from an operational to a higher level and made great effort to improve the organisation's operations. Attempts of technological advancement, changing organisational systems and development/enforcement of SOPs (standard operating procedures), along the perception of resource limitation, remained unsatisfactory. The researcher's acquaintance with knowledge management, along

her academic qualifications of business administration and computer science, came into action ascertain the best solution for the organisational performance of think tank organisations. One underlined assumption for the study was that knowledge management could be a possible solution for improving organisational performance. This came packaged with the assumption that knowledge management needs to be considered at the strategic level. A think tank organisation is highly knowledge intensive, where the input is knowledge, processed by pure knowledge workers (researchers), and is converted into knowledge products. To handle the rhetoric of such an organisation, mechanical phenomena were not sufficient and a fine balance between human and structural elements was required to achieve satisfaction and improved performance.

The prior literature presents two dimensions i) an inherent assumption that knowledge management enhances organisational performance (c.f. Chong (2006)), and ii) the knowledge management and organisational performance relationship is a black box relationship (Chang and Ahn, 2005). The study plans to demonstrate the impact of knowledge management on organisational performance, explaining the ‘how’ behind the relationship. Interest has increased in discussing the link between knowledge management and organisational performance (Payal and Debnath, 2015), but the missing explanation serves as the justification for the study, and will be highlighted as a contribution that provides an in-depth explanation of the relationship between the two constructs. Moreover, the relationship has great influence, is gaining interest and needs to be viewed in alignment to organisational strategy (c.f. Lu (2017). On the other hand, the literature so far has barely dealt with these three constructs in a simultaneous manner. Strategy is the definition of ‘how’ the objectives will be achieved

(Markides, 2012) and performance is the explanation of what has been achieved (Armstrong-Flemming, 2015), whereas the objectives are knowledge and knowledge outcome. Knowledge is actually managed to formulate strategy and define performance targets. Knowledge management could regulate the knowledge between the constructs of strategy and performance, with a view to cope with continuous change and update the mechanism.

### 1.5. **Research gap**

A growing consideration of organisational knowledge as a critical resource draws attention towards KM. Meanwhile, knowledge management takes the position of an independent field, along with an increasing number of research studies and KM programs being implemented. KM is no longer an alien term in developed countries, but developing economies are far behind its adoption, along with a lack of research utilisation. The abstractness of ‘knowledge’, ‘knowledge intensive work’ and ‘knowledge intensive organisations’ are not only prevailing, they are also expanding with increasingly complex contexts, giving a strong demand for KM. Competitiveness and higher demands to enhance performance leads researchers to find a link between KM and organisational performance (OP). Business and profit oriented organisations are already in the experimentation stage to explore this link. Whereas, non-profit, small organisations (Lee and Lan, 2011) within a developing country such as Pakistan are unaware of this advancement. Small policy research organisations, i.e. the think tanks (TT) of a developing country such as Pakistan will be taken as unit of analysis in this study.

The study has worked mainly through two types of gaps, namely, theoretical and contextual gaps. The theoretical gap primarily deals with the relationship between

knowledge management, organisational performance and organisational strategy. Whereas the contextual gap focuses on the details of knowledge management in think tanks, specifically in Pakistani TT's. Each gap is described in the sub-sections below.

### 1.5.1. **Theoretical research gap**

Multiple dimensions in the field of knowledge management (Choi and Lee, 2003), the complexity of the phenomenon of 'knowledge' (Chang and Ahn, 2005) and various multidisciplinary approaches involved in the field (Artail, 2006), point towards the need for further work in the field. The KM literature has began paying attention to its relationship with organisational performance. In last few couple of years the emphasis has developed towards explicating the knowledge management and organisational performance link more thoroughly (Payal and Debnath, 2015). The importance of KM and keeping it as a strategic organisational agenda does suggest a relationship between knowledge management and organisational strategy (Zack *et al*., 2009), but it is still unexposed (Chouridas *et al*., 2003). Strategic resource 'knowledge', as suggested by a knowledge based view (Tsoukas, 2005), diverts the attention of KM at the higher strategic level. Furthermore, the three wider conceptions of KM, OS and OP have not been considered together. Moreover, there is a dearth of large scale empirical studies to present the strategic relationships of KM (Zack *et al*., 2009). The formal practices of KM remained the focus of the relevant literature, although informal practices still need exposition (Tsoukas, 2005). So far, the literature has only covered the cases of explicit KM programs (Durst and Edvardsson, 2012) and has failed to capture the implicit knowledge management.

### 1.5.2. **Contextual research gap**

Payal and Debnath (2015) systematically reviewed the knowledge management and organisational performance relationship and considered context of the study. They found only one study in respect to Pakistan. The adoption of KM is relatively a new trend and in its infancy for developing nations. In Pakistan, the know-how of knowledge management, related terminologies and technology, still lacks. Sufficient studies of KM in the Pakistani context have not yet been conducted.

However, knowledge management is of high concern for knowledge intensive organisations (Alvesson, 2004), whilst the literature surrounding knowledge intensive organisations itself is in its developing stages. Furthermore, think tanks (highly knowledge intensive organisations), are scarcely discussed within the management sciences or within organisational studies research. This study is one of the inaugural studies discussing KM in think tanks. Moreover, discussing a context where there is no implemented knowledge management program, makes it more imperative and open for the understanding.

## 1.6. **Theoretical background**

The literature review should not merely be the reflection of past research, but should conclude with some new knowledge (Boote and Beile, 2005). Policy ideas generation, policy evaluation, providing experts, and discussion platforms (Nicander, 2016), all make a think tank knowledge intensive, and demand effective knowledge management. Haq and Ali (2004) refer to TTs as public policy research organisations, with the aim of analysing and evaluating economic, political, social and strategic policies and issues. The increasing consideration for KM is reflected by a bibliometric examination for publications over 1999-2009 on the ProQuest database, which

resulted in 26,000 citations, and around 1500 citations each year from 2005-2009 (Grant, 2012). Ma and Yu (2010) advise that interest in knowledge management (as an independent field) is increasing, but one obstacle is the less recognised journals.

The world is in the process of transformation due to a range of phenomenon, from demographics, ecology, globalisation, socio-political to the overwhelming information and knowledge society (Goux-Baudiment, 2009). The importance of knowledge along a multi-perspective and complex nature (Chang and Ahn, 2005) increases concern for the required management. Simultaneously, an embedded tacit nature with multiple forms, makes it difficult to be managed (Schwartz, 2006). Different forms of knowledge tend to opt for particular management (Tsoukas, 2005), creating a distinction between knowledge management choices. Knowledge is the combination of information along an understanding of patterns, approaching wisdom (Cooper, 2014). Knowledge hierarchies (Frické, 2009) and reverse knowledge hierarchies (Früauff, Kahrens, Menacere and Mouzughi, 2015) relate to the distinction of tacit and explicit forms of knowledge.

### 1.7. **Theoretical lens: Knowledge based view**

The three constructs of knowledge management, organisational strategy and organisational performance are vital in the present study. Su, Peng and Xie (2016) explained the need of theoretical lens to explore the relationship of knowledge activity with performance. Strategy underpins performance differences between organisations, for which a resource based view provides an explanation for the basis of the possession of unique practices (Alegre, Sengupta, and Lapiedra, 2013). An extension of RBV is a knowledge based view, with a focus on knowledge and related

organisational concerns (Grantt, 1997). KBV has a strategic orientation and keeps a concern for organisational performance (Kalling, 2003).

Strategic focus, emphasis on efficiency, and internal consideration by resource based view to identify unique organisational resource (Pike, Roos and Marr, 2005), served the reason for choice for the purpose of current study. Knowledge based view extends resource based view to link knowledge resources with performance and it is a widely accepted theoretical lens (Valtakoski, 2017). Moreover, knowledge based view attains higher importance in case of knowledge intensive organisations, such as, think tanks. Since knowledge based view, explains the purpose of an organisation is to create, use and share knowledge.

## 1.8. **Research aim and objectives**

The research aim of the study is as follows

Finding out the impact of knowledge management in think tanks

The study aims to ascertain the core issues, challenges and opportunities in reference to knowledge management in think tank organisations. The study explores strengths and weaknesses in regards to knowledge management in the Pakistani think tank industry, in order to suggest a plan of action to reap the related benefits. This aim is followed by two main objectives, where the second research objective has four sub-divisions.

- Developing a theoretical model for knowledge management to relate organisational strategy and organisational performance.
- Developing an evidence based conceptual framework of knowledge management for Pakistani think tanks.

- Assessing the level of knowledge management awareness in Pakistani think tanks.
- Assessing the level of formality and informality of knowledge management in Pakistani think tanks.
- Assessing knowledge management enablers in Pakistani think tanks.
- Defining knowledge management, organisational strategy and organisational performance relationship in Pakistani think tanks.

## 1.9. **Research questions**

Theory building research requires defining a broad focus in terms of research questions, to avoid getting lost in voluminous data (Eisenhardt, 1989). The research questions were developed through several iterations of literature digging, expert consultation, collegial reviews, blind peer reviews, practical exposure, field work and data analysis. To achieve the objectives, as defined in the above section, the specified research questions are presented below.

RQ-1: How does knowledge management occur in Pakistani think tanks and how considerable is the awareness?

RQ-2: How do formal and informal knowledge management practices vary across Pakistani think tanks?

RQ-3: How practical are the knowledge management enablers within Pakistani think tanks?

RQ-4: How does the relationship between knowledge management, organisational strategy and organisational performance differ across Pakistani think tanks?

## 1.10. **Research Methodology**

Organisational studies research is conducted in several ways with no defined norms, schemes, ideas and designs (Buchanan and Bryman, 2007). Using the lens of critical realism and following a qualitative methodology with an inductive approach, has shaped the results in the form of case studies. Interviews, observations and document analysis are used as a mode for data collection to capture external reality (Bannister, 2005). Phenomenon understudy requires qualitative understanding to address the complicated phenomenon of knowledge management in relation to organisational strategy and organisational performance. In theory building research, data analysis has central position, but it is difficult and less codified (Eisenhardt, 1989). The chosen context includes exceptional knowledge intensive organisations, i.e. think tanks. Since the study aims to build a conceptual framework, present details of underlined constructs; the lack of implemented KM programs, the lack of awareness about KM in the organisations under study, and aims to capture informal practices, a qualitative study is highly suitable, since the more tacit the phenomenon, the more qualitative the study will be. The study contributes a conceptual framework of knowledge management, with reference to the organisational strategy and organisational performance in Pakistani TTs, and forms the basis for future studies to involve quantitative methodology.

## 1.11. **Research findings and contribution**

A key activity of organisational research ‘theory development’ synergies observations from literature, common sense and experience becomes testable, relevant and valid when seen empirically (Eisenhardt, 1989).

### 1.11.1. **Theoretical findings: knowledge management and organisational performance**

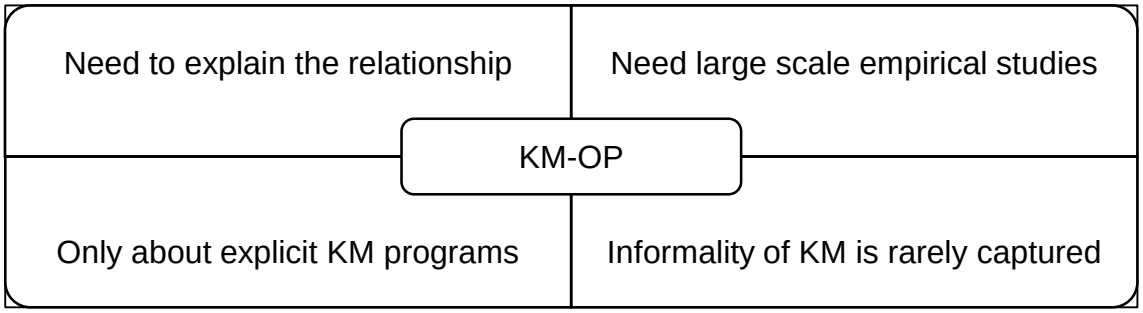


Figure 1-1 Theoretical findings of KM-OP relationship

First level findings, originating from the understanding of knowledge management and organisational performance literature, have four dimensions. Firstly, it requires clarity of the relationship (c.f. Choi and Lee, 2003). Somehow, the relationship has been viewed as a black box relationship so far (Chang and Ahn, 2005). Secondly, the empirical evidence used to present the relationship is on demand (Zack et al., 2009). Thirdly, the relevant literature discusses the explicit KM programs (Durst and Edvardsson, 2012) and is silent on the implicit/inbuilt packages. Fourthly, the informality of knowledge management is rarely captured. The four dimensions are presented in the figure 1.1.

### 1.11.2. **Theoretical findings: Knowledge management and organisational strategy**

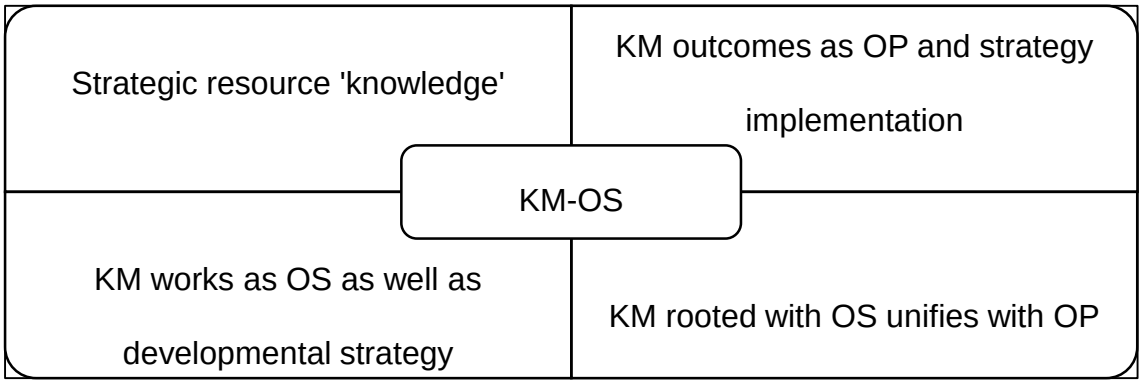


Figure 1-2 Theoretical findings of KM-OS relationship

Strategies aim to achieve performance and require knowledge management (Yea-Wen et al., 2015). KM is critical in devising and assessing a business strategy, given the strategic significance of knowledge (Chourides et al., 2003). The uniqueness of organisational knowledge (Lin and Tseng, 2005) demands for a unique organisational strategy. KM contributes towards organisational performance and supports strategy implementation (Mills and Smith, 2011). KM facilitates organisational practices, originating from strategy and leading towards performance. With the changing environment, strategy develops and strategic knowledge keeps the organisation updated (Crossan, Lane, and White, 1999). KM works as a organisational strategy, as well as a developmental strategy (Kalseth and Cummings, 2001). KM is rooted among a strategy that unifies with organisational performance (Natarajan and Bagwan, 2016). Figure 1.2 describes the theoretical findings surrounding knowledge management and organisational strategy relationships.

### 1.11.3. **Contribution to KM-OP**

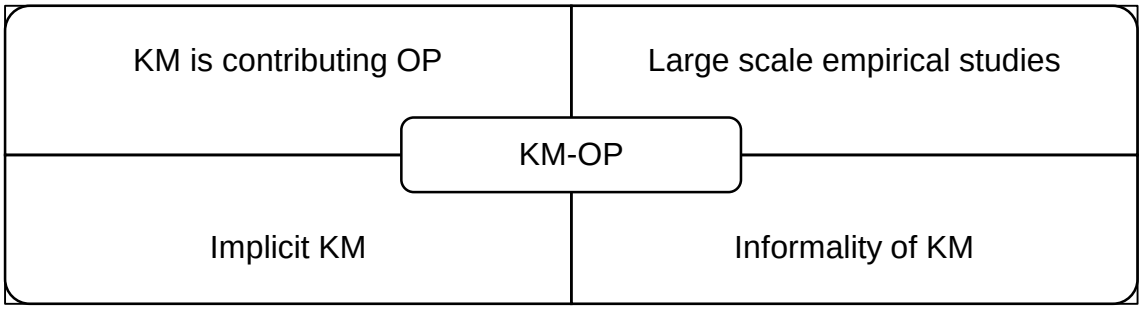


Figure 1-3 Contribution for KM-OP relationship

The management of organisational knowledge through strategic experiences with intention of improving organisational performance is knowledge management (Natarajan and Bagwan, 2016). The realisation of knowledge comes with the ability to enhance organisational performance (Rechberg and Syed, 2014). Zack *et al*. (2009) highlighted the need for large scale empirical studies of knowledge management and OP, which is fulfilled by the study. The study presented empirical data from 8 Pakistani think tanks, with a view to present the relationship between KM and organisational performance. KM studies are dominated by the context of explicitly implemented knowledge management programs (Durst and Edvardsson, 2012). The study contributes a KM study with an empirical context of implicit knowledge management. The study also contributes by capturing the informality of knowledge management. This is summarised in figure 1.3.

### 1.11.4. **Contribution to KM-OS**

The implicit relationship between knowledge management and organisational strategy has been appropriately explicated in the study. KM supports strategy formation, implementation (Mills and Smith, 2011), continuous development (Kalseth and Cummings, 2001) and transformation into organisational performance. The contribution to KM-OS is summarised in figure 1.4.

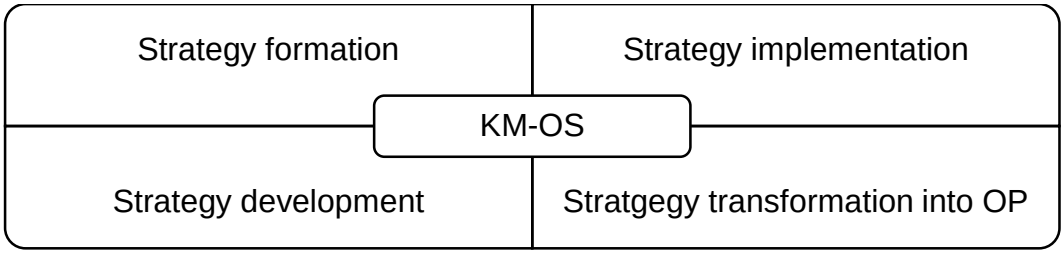


Figure 1-4 Contribution for KM-OS relationship

### 1.11.5. **Primary contribution: OS-KM-OP**

The primary contribution of the present study is a consideration of the relationship between three key organisational constructs (organisational strategy, knowledge management and organisational performance), concurrently. The study pays attention to the existential fact of KM, which is independent of its awareness and explicit implementation. It has been established that KM is the central energy source, which keeps the OS and OP in a constant adjustment with each other. Knowledge management is primarily enabled by the three-organisational capitals (human, structural and relational), where relational capital plays the most vital role. The core of KM is the tacit-informal practice, primarily supporting the development of relational capital. Knowledge resources, such as knowledgeable leadership, multilingual skills, a conducive environment and cultural norms and values, weigh more in the organisational life cycle than tangible resources.

## 1.12. **Research structure and layout**

For the purpose of clarity and ease, this paper is divided into six chapters, namely, an introduction, literature review, research methodology, findings, discussion and conclusion. Quality of understanding is more directly related to the final thesis write-up for a qualitative study (Bamford, 2008). The first chapter sets the scene for the overall research, describing what shall be presented in the other forthcoming chapters.

It includes the study's back-ground and motivation, research gaps, research aim and objectives, research methodology, findings and research contributions, and the thesis layout in brief. The second chapter provides a broad context for the study, along similar lines, as explained by Boote and Beile (2005). Furthermore, the chapter is an effort to present the dual aspects of the theoretical and methodological dimensions of the past research. The third chapter of the research methodology provides details on the methodological hierarchy, followed by research from the philosophical stance to the inherent aspect of qualitative data analysis. It also discusses the underlining management theory and the researcher ground experience in the Pakistani think tank industry. The chapter also summaries the participant's profile and the special consideration given to the ethical and quality criteria during the research. The findings chapter first takes into account the details relevant to the nature of Pakistani TT organisations as the subject of the study. After presenting the concepts of knowledge and knowledge resources, a detailed description of KM awareness in the context organisations is specified. KM enablers in Pakistani TTs are presented, divided into human capital, structural capital and relational capital, each with their sub-sections. Finally, the chapter presents the three main constructs of the study- KM, OP and OS, in respect to the findings from Pakistani TT's. The fifth chapter is critical in terms of the contributions from the study, since it deliberates on the literature and findings in collaboration of the two. Following the hierarchy of knowledge, KR, knowledge management, KM enablers, it maintains a detailed account on the relationship between KM, organisational performance and organisational strategy. Whilst discussing the awareness and level of formality or informality of knowledge management in Pakistani think tanks the chapter reflects on the research questions. The final chapter concludes the whole research and offers a recap on the research

aim and objectives; offers an answer to each research question, synthesises the key findings, and presents the conceptual framework designed by the research. The chapter presents dedicated sections for the research contributions, its impact, its limitations, future recommendations, and the learning experience in greater detail. The final pages of the study include a bibliography, appendices and index.

## 1.13. **Chapter summary**

The present research is focused on knowledge management in relation to organisational performance and organisational strategy in Pakistani think tank organisations. The above introduction chapter has provided an overview of the research and KM model for TTs. The study's back-ground, motivation and the research gaps, along with the dual dimension of theory and context were briefly described. The study aims to ascertain the impact of KM in TTs, with two main objectives (1) developing a theoretical model of KM in relation to OP and OS, and (2) develop an evidence based conceptual framework of KM in relation to OP and OS in Pakistani think tanks. Furthermore, the chapter presents the research questions along with brief descriptions of the research methodology employed. The key findings and contributions of the study in terms of the triad relationship of knowledge management, organisational performance and organisational strategy is briefly presented. The section following this describes the layout and structure of the study. In the second chapter, a detailed literature review will be presented to reflect contemporary understanding within the field.

# Chapter 2 : Literature Review

## 2.1. Introduction

The strategic importance of knowledge resources (KR) has raised a concern for utilising knowledge management (KM). It has become critical to analyse the role of KM, particularly in reference to organisational performance (OP) and organisational strategy (OS). The literature review needs to be rigorous and unbiased (Tranfield, Denyer and Smart, 2003). A key hurdle for research is the multidimensionality of KM and peculiar nature of KR. The present chapter seeks to develop the relationship between KM, OS and OP, using relevant literature, considering knowledge and KM as strategic. The chapter presents a KM-OP model based on the literature, considering OS in an ever changing environment and human, structural and relational capital as KM enablers.

This chapter is structured as follows. First it offers a brief overview of knowledge, KR and KM, with a special focus on organisations. It is followed by an overview of a resource based view (RBV) and knowledge based view (KBV), whilst considering the importance of management theory for the research of business, management and organisational sciences. Subsequently, the chapter focuses on the relationships of KM-OS and KM-OP and how this affects KM. This is then followed by a discussion of three constructs (KM, OS and OP) and their inherent relationship in a continuous development cycle. Finally, the chapter presents a theoretical model and concludes with a critical summary, which will be used in the primary findings in the subsequent chapters.

## 2.2. Think tanks

The emergence of non-university knowledge creating bodies (think tanks) after world war two reduced the monopoly of universities (Kalkan, 2017). Highlighting the

challenges faced by the think tank industry Hernando, Stone and Pautz (2017) argue that in the context of financial difficulties, amplified competition, and higher stakeholder interest. “Think tanks have an opportunity to reinvent themselves as organisations able to discern the reliability and usefulness of policy advice” (page 1). They criticise that although the Go To think tank index is extensive and has sustained itself since 2008, it still does not define a think tanks constitution/components. They elucidated that predictions of the think tank’s death is mainly backed by the argument of little acceptance by policy makers. They illuminated how boundary less and fast changing knowledge creates further challenges and opportunities for think tank organisations, who have the potential of revitalizing the policy scenario. The Brookings Institution is classed as the number one think tank in the world according to the Go To think tank index report 2017, besides all the biases (2017 Think Tank Rankings - Cheat Sheet).

The emergence of policy ideas is gaining attention along-with the black box policy making process, with a wide range of policy influencers now including think tanks (Arshed, 2017). Arshed advises that other titles used for think tanks are ‘idea factories’ or ‘brain trusts’. They play with ideas; make them thinkable, credible and practicable in public service reforms (Williamson, 2013). Research is an interactive process which is based on previous research, and will open the way for new research (Pike, Roos and Marr, 2005) - a key function of any think tank. A think tank’s objectives, defined by Perez (2014), are to inform the policy process by providing analyses to policy makers and by participating in public debates. However, a definition of ‘think tank’ is lacking in the existing literature, mainly due to the multiple forms they take, their focus on a specific subject area, and priority given to their function, and specified subjects of enquiry. Arshed (2017) writes that the difficulty to define think tanks is due to

organisational differences and contextual factors. According to Perez (2014), TTs have the capacity to gather multiple policy actors and engage in policy networks, through seminars, workshops and conferences, (taking credit for policy suggestions), whereas think tank communication with the public remains limited. Perez argues that the ease of social media in providing feedback is an opportunity for TT's. The complexities of communication systems and lack of research drives TTs towards alternative communication strategies; for example, mailing lists, social networks, non-standard electronic newspapers, seminars, conferences. Think tank websites, therefore, play a key role in their presentation in European countries.

Ideally think tanks are independent bodies generating real time, value free information, along with a neutral discussion to guide policy makers and inform the public (Arshed, 2017). Generating policy ideas, evaluating policy proposals and government programs, providing experts and a platform for punditry, are often described as the tasks of think tanks (Nicander, 2016). Nicander further argues that the influence of think tanks is less, through tangible products, than indirect methods. Pop (2012) established that a think tank requires financial efficiency and transparency, media visibility, trained human capital, and a code of ethics to support national and international collaborations. Mendizabal (2015) describes how think tanks have a history of residing in capital cities, keeping their governmental and international political focus, yet have recently begun moving away, with a consideration for their required academic and industrial interactions. Kraemer (2016) discusses the appearance of virtual TTs, which come with reduced costs. He argues that traditional think tanks have an extra layer of management and communication. TTs multidisciplinary, independent nature and intention to influence public policy with

varied perspectives (Arshed, 2017), naturally paves the way for knowledge management. Additionally, it usually takes a whole decade for an idea to turn into policy, and it is methodologically not convenient to measure the direct impact of a think tank.

### 2.3. **Think tanks in Pakistan**

Think tanks are a well-developed organizational model, and play an important role in policy processes in developed countries, whilst there are relatively few think tanks in developing countries (Young, 2005). In the Pakistani think tank industry, the distinction between academic departments and university affiliated think tanks is still discrete, whereas it is blurred in the developed world (Hernando *et al*., 2017). Although Pakistani think tanks remain non-profit bodies (and usually non-governmental as well), many NGOs have started adopting the title 'think tank', despite their different nature and focus. The three key challenges for think tanks, as highlighted by Hernando *et al*. (2017), are also applicable for Pakistani think tanks in varied intensity. Financial challenges appear to be the biggest hurdle in the developing world, and for Pakistan- there is an economy crisis. Governments usually perceive non-state policy research as not important and private funding is not sufficient. Associated with funding, one further point of concern is think tank's transparency and independence. However, the current study does not focus on exploring the funding structure of think tanks in Pakistan. Increased competition is relatively less applicable in the context, enhancing the environment for collaboration, as DeTienne and Jackson (2001) claim, competition restricts knowledge sharing. External competition is minimal, mainly due to two reasons. Firstly, low budgets for outreach reduce outward efforts to compete. Secondly, there is an ignorance of the developed world and a false perception of the

opportunities in developing countries, where-as internal competition is less, since the Pakistani society favours collaboration more than competition, and is not an individualistic culture. Another reason for low internal competition is that the Pakistani think tank industry is still in its nascent stages. The third challenge of the 'questionable role of expert' is in its very early stages, since only a handful of expert availability subsists. This also traces back to a culture where knowledgeable people are highly respected.

At the time of Pakistan's independence, it had only one university - the University of the Punjab, and the requirement of knowledge based activities was high for the country's development (Awan and Saeed, 2014). Zaidi (2013) explained how social science research became established in Pakistan during late 1990s, with the possible reason that there wasn't a research friendly environment. He further identified research how organizations and think tanks observed growth in the late 2000s. Although research output in Pakistan increased during last few years, the quality of research output is still a question. Research performance has long been questioned (Kostoff, 1995) in developing countries including Pakistan, performance measures for research are lacking. Although Higher education commission, Pakistan have some rating criteria for categorizing journals and accepting research papers and conference presentations, but huge gap exists for organizational performance of specifically research organizations, although there exist some criteria for academic institutions and universities.

## 2.4. **Knowledge resources and knowledge management**

This section provides a review of knowledge and knowledge resources, KR's in relevance to think tank organisations and the relationship between KR's, strategy and

performance is presented. Finally, an overview of the resource based view and knowledge based view is offered.

### 2.4.1. **Knowledge**

'Knowledge is a valuable, rare, difficult to imitate and organisation-specific resource' (Thornhill, 2006; 689). Several of the perspectives of knowledge analysed by Chang and Ahn (2005) are: a state of mind, an object, a process, a condition of having access to information, and/or a capability. This can be diagrammatically shown as follows:

'Fuzzy, soft, intangible, organic and difficult to measure' are some of the

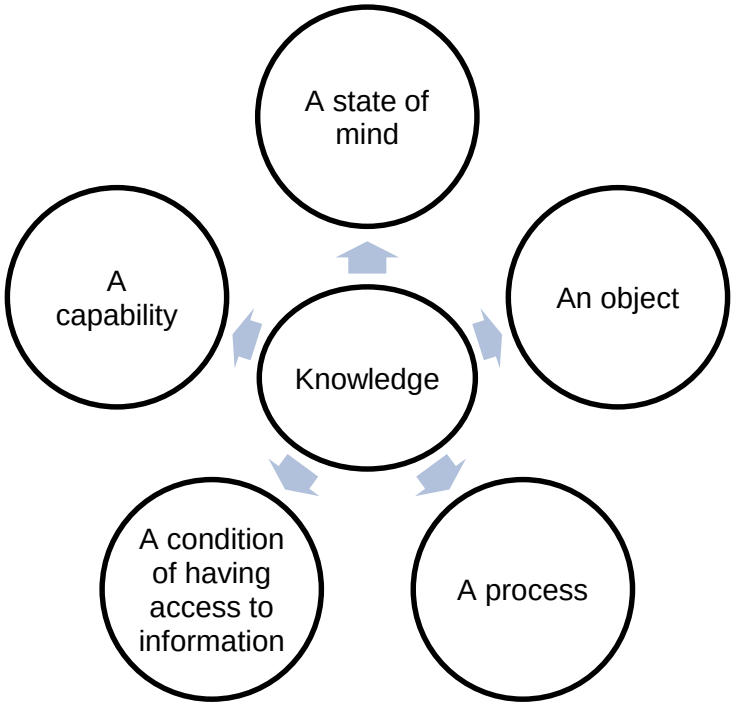


Figure 2-1 Perspectives of knowledge (Chang & Ahn, 2005)

characteristics of knowledge (see Figure 2.2). This brings forth the question of 'what to manage' and 'how to manage' (Chang and Ahn, 2005).

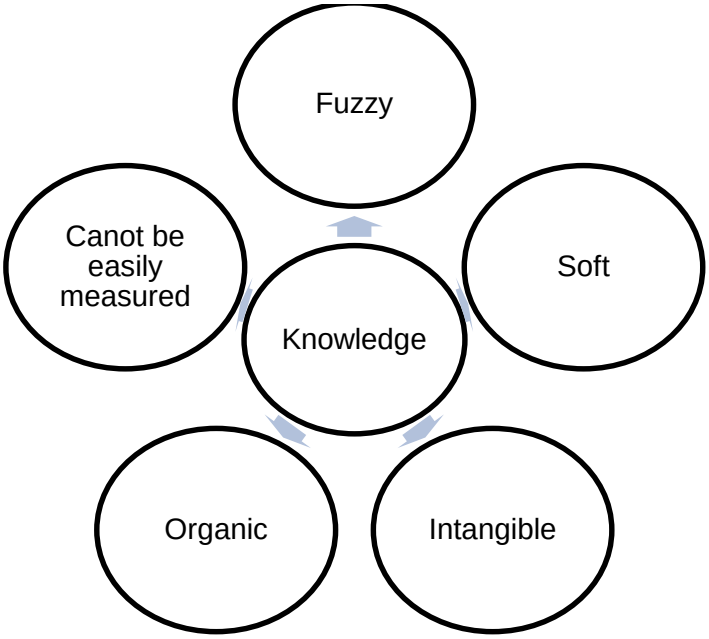


Figure 2-2 Characteristics of knowledge (Chang and Ahn, 2005)

The five kinds of Aristotelian knowledge referred to by Schwartz (2006) are: factual or scientific knowledge, skills based knowledge, experiential self-knowledge, intuition, and the theoretical knowledge of universal truths. These types, perspectives and characteristics of knowledge, multiply the complexity and lead to an individualistic nature, depending on understanding and belief. Knowledge is deeply rooted in beliefs and varies from person to person (Rechberg and Syed, 2014). A further delicacy appears in the context where an additional kind-'divine knowledge' is, derived from social values. Al-Attas (2005; p16) describes knowledge as "the arrival of meaning in the soul, and the soul's arrival at meaning". Furthermore, he coined the term 'corruption of knowledge' referring to misplaced knowledge in terms of time, space and ownership.

Several aspects of KM have been addressed in the literature since Polayni delineated tacit and explicit knowledge (Liao, 2003). Tsoukas (2005) takes the view of Nonaka and Takeuchi, that a non-articulated set of knowledge is called tacit knowledge.

Tsoukas (2005) further explains that the manner of appropriation differs, for example, through reading manuals or apprenticeship. Furthermore, considering Polayni's and Oakeshotts definition of tacit and practical knowledge respectively, skilful knowing contains an ineffable element; it is based on an act of personal insight, which is essentially in-articulable.

Another common view of knowledge is, in relation to the data, information and wisdom on the axis of understanding and connectedness, as used by Cooper (2014). According to this view, data takes the shape of information along the understanding of

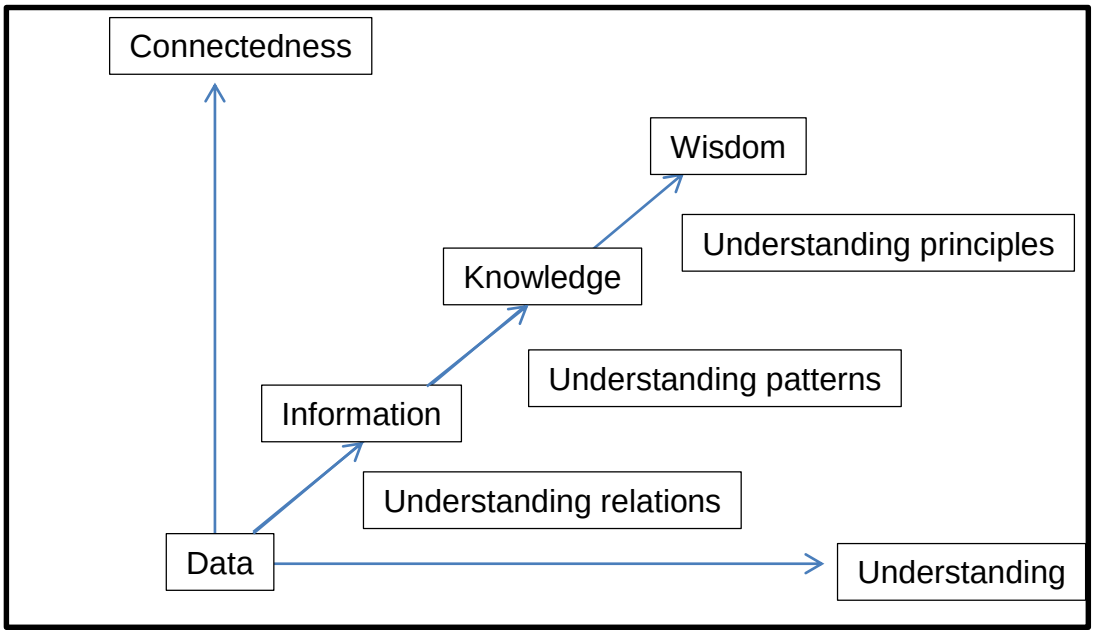


Figure 2-3 Data–information–knowledge –wisdom (Source Cooper (2014))

relationships and information combines with the understanding of patterns, which elevates it to take the shape of knowledge. Furthermore, knowledge, combined with the understanding of principles, turns into wisdom (see Figure 2.3). This hierarchy originates from the work of Ackoff (1989) who divided the content of human mind into five categories of data, information, knowledge, understanding and wisdom (Bellinger, Castro and Mills, 2004). The same is also known as a knowledge pyramid, knowledge hierarchy (KH) or DIKW hierarchy (Frické, 2009). Although the fast paced environment

of today's organisations requires reconsideration of KH to enhance judgments (Früauff *et al*., 2015) and emotional intelligence, they consider the contextual impact on KH important.

Reverse KH has also been under discussion in the last decade, where tacit knowledge from the human mind is shared as information (Früauff *et al*., 2015). Another view is that tacit knowledge is not particularly reversible, whereas through explicit coding it may go in reverse (Tsoukas, 2005). Tacit-Explicit, descriptive-procedural, local global, declarative-procedural are all considered modern differentiators of knowledge (Schwartz, 2006). Further views of knowledge worth mentioning are: classifications of knowledge as product knowledge and process knowledge (Chang and Ahn, 2005), the dual nature of knowledge as input and output (Vekstein, 1998), the epistemological stance that considers it an entity (tacit and explicit) and differentiates it from information, and as an organisational asset (intellectual component). The tacit dimension is relatively ignored when compared to theoretical and codified knowledge (Tsoukas, 2005). A tacit orientation depends on interpersonal knowledge and is informal; the other dimension is formal and concerned with external knowledge (Choi and Lee, 2003). These views complement each other. A consideration of knowledge with various dimensions is important because the required management may differ accordingly (Chang and Ahn, 2005). Most of the present literature provides an entity view with a tacit and explicit division, which cannot be ignored (Yea-Wen, Shih and Yuan, 2015).

In general it is worth noting, the definition for knowledge in the literature review, which can be referred at certain points to remind oneself of what we are talking about, but certainly there is no need to delve into the related debates, as argued by Schwartz

(2006). He has also argued that most organisational knowledge management on practical grounds has been developed apart of the knowledge theories.

Several frameworks and models have been formulated using various types and definitions of knowledge (Früauff *et al*., 2015). Similarly, Heisig (2009) tabulated 29 knowledge dichotomies used in the 160 KM frameworks, where tacit/implicit-explicit dimension is the primary, and organisational knowledge is second on the list. Additionally, a quarter of the 160 sampled frameworks remain implicit about knowledge. Knowledge is perceived and used differently in diverse cultural routines (Al-Fehaid, 2014). Above are limited aspects of knowledge contributing to the understanding within the present research. Knowledge theories are wider topic and not in the primary focus of this thesis.

### 2.4.2. **Knowledge resources**

In the 21st century, focus has been shifted from tangible resources to knowledge resources (e.g. Früauff *et al.,* 2015; Marr, Schiuma and Neely, 2004). Hu, Li, Wen and Yan (2014) emphasised the identification and measurement of KRs. They defined KR's as carriers of knowledge assets (p480). KRs literature can be traced back to Socrates, Plato and Aristotle (Nnabuife, Onwuka and Ojukwu, 2015). Small (2004) maintained that Plato, among westerner scholars, was a pioneer who wrote about 'knowledge'. Knowledge resources and knowledge assets are similar, and have been widely used in the relevant literature, and often, the terms 'resources' and 'capabilities' are used interchangeably in the literature (Mills and Smith, 2011). Mills and Smith (2011) have broken down the components of KA as: technology infrastructure, organisational structure and organisational culture. Culture; leadership; employee participation; ICT and organizational structure are considered as the five success

factors in regards to organisational knowledge management by Bhosale and Shinde (2015). Bukh and Johanson (2003) emphasised that handling knowledge resources by knowledge intensive organisations results in value creation process, which requires deeper understanding. The present study has differentiated between knowledge resources and knowledge management enablers. It is difficult as well as delicate to draw a differentiation line between knowledge resources and knowledge management enablers, but the demarcation is important to understand several impact levels of knowledge management. It could be argued that knowledge management may not initiate with the absence of knowledge management enablers but may not grow with the absence of knowledge resources. The three knowledge resources considered are leadership, culture and environment, which are briefly discussed below. Whereas, knowledge management enablers are discussed concisely, in the sub-sections 2.5.7.

#### 2.4.2.1. **Leadership**

Jones, Macpherson, Thorpe, and Ghecham, (2007) highlighted the role of leadership among human capital, specifically in smaller organisations. SMEs, with their informalities, flat hierarchy and reliance on a sole leader to make decisions, are more dependent on a leadership to gain benefit from KM (Durst and Edvardsson, 2012). Leadership involvement is one of the critical factors towards devising a strategy (Chouridas *et al*., 2003). Sial, Zulficar, Kousar and Habib (2014) studied the impact of servant leadership on knowledge sharing intentions among employees in the higher education commission of Pakistan. They argued that servant leaders would have the ability to assist knowledge workers conduct their work with ease, minimise barriers in their way, provide customised learning opportunities, and further allowing the workers to design and plan their jobs. Furthermore, simultaneous autonomy and control is

considered a key quality of servant leadership. Leaders could bring coherence in organisations working to achieve organisational objectives (Bhosale and Shinde, 2015). Hassan, Ibrahim, Nawaz and Shaukat (2016) argue that leaders could make use of social pressure, with a view to enhance knowledge sharing. Through his systematic literature review, Lu (2017) found that leadership could play a role in the usability of knowledge management systems.

#### 2.4.2.2. **Culture**

Culture forms daily routine of an organisation (Bhosale and Shinde, 2015). Moreover, culture is one of the determinants of success or failure of an organisation and could make work gratifying, which improves performance. Culture develops over time and it is a challenge for knowledge intensive organisations to integrate people into their unusual culture (Starbuck, 1992). Al-Fehaid (2014) analysed cultural impact on KM and argued that every country would have unique style of KM. Furthermore, Islamic culture could shape the organisational KM activity. Al Saifi (2015), dealt with the research variable of organisational culture, emphasised the significance of KM for organisational competitiveness, organisational culture and organisational strategy. Organisational culture, i.e. a-set of beliefs, values and principles, plays an important role in improving organisational effectiveness and output quality (Carmeli and Tishler, 2004).

#### 2.4.2.3. **Environment**

An organization's environment has an impact on learning, since with increased complexity; a reliance on knowledge resources also increases (Zack *et al*., 2009). Armstrong-Flemming (2015) describes how business performance improves and problems are solved, through the value addition of knowledge processes and

knowledge-friendly environment. Repeated interaction fosters cooperation in the workplace (Kvaløy and Olsen, 2008). Durst and Edvardsson (2012) argue that slow staff turnover contributes to knowledge sharing by providing a more stable and trustworthy environment. Hassan et al. (2016) found that individuals could not be forced into knowledge sharing, however the aim could be achieved by providing a nurturing environment. Chourides *et al*. (2003) considers research as a knowledge environment critical for strategy. Zack *et al*. (2009) further found that the organisational environment is important to facilitate learning.

### 2.4.3. **Knowledge resources and think tanks**

The non-profit, research and educational nature of think tanks (Leeson, Ryan and Williamson, 2012) drew attention for knowledge management. “KM may be more about managing the organisation’s responses to knowledge-absences than about managing the knowledge assets” (Spender and Scherer, 2007; p17). In organisations, knowledge exists in the following two forms: written scripts and data repositories, and in a more intangible form, based in customs and courses (Natarajan and Bagwan, 2016). Newell, Tansley and Huang (2004) advocate the view that much of the knowledge in organisations is of a formal nature, yet there is also informal knowledge, which has an impact on processes. According to Kraemer (2016) think tanks largely deal with data, facts, ideas and narrative. The Intelligence developing institutions, like think tanks, need to be multidisciplinary, as well as capable of critically analysing the future needs (Goux-Baudiment, 2009).

The knowledge exchange theories; personalisation, commoditisation and exchange of mixed knowledge, has been analysed by Landry, Amara and Doloreux (2016), utilising both tacit and codified knowledge. They ascertained the likelihood that organisations

will exchange mixed knowledge more than tacit knowledge and codified knowledge more than tacit or mixed knowledge. Furthermore, it is considered more likely that knowledge exchange will be more tacit, or mixed, rather than codified. They also found that an increases the number of employees, knowledge workers and the organisation's age will drive the organisation close towards mixed and codified knowledge.

Think tanks serve as a knowledge bridge between policy circles and the public (Perez, 2014). TTs play a key role in formulating national knowledge culture, through contributing to the policy making process (Sayed, 2012). Perez (2014) implied that think tanks act as a knowledge broker, and this role is affected by the policy making process. As a knowledge broker, the three functions of think tanks are (1) KM to support the research process, (2) nurturing relationships with policy actors, (3) and to create awareness in the public and provide solutions to politicians.

Perez (2014) analysed that the performance of a think tank is affected by the lower level of public accountability. Participative processes, stakeholder concerns, KM framework specified for policy actors, and a lack of overarching public sphere, is the policy making dimension that shapes the knowledge broker role of think tanks. She analysed how the knowledge accumulated in TT's, might affect the policy process, and further suggested that TTs may consider customised KM. Perez also implied that limited resources lead to a more modest accumulation of knowledge. The subject focused, analytical and research capacity of the staff, and the characteristics of the produced analyses and research, impact the KM function of TT's. According to Perez (2014) research staff are expensive, and a research gap subsists regarding knowledge management practices in social sciences research organisations (Setyn and Khan, 2008).

Bamford, Forrester, Reid, Dehe, Bamford and Papalexi (2015) discussed the broadness of transferring knowledge from academia to industry. Defining the needs of think tanks, Nicander (2016) lists a diverse knowledge of politics, ideas and policy implementation, confirming the knowledge intensive nature of these organisations. He emphasises TTs as knowledge producing organisations, where network is identified as a key element. The three elementary components of think tanks are: HR, funding and a demand for their knowledge and services. He describes the dual nature of human capital of think tanks that belong to academia and politics. He specifies two kinds of people required by think tanks which are: (1) experienced people of repute and (2) energetic people with enthusiasm and new ideas. Young, skilled and motivated people are the hope for think tanks for idea dissemination as emphasised by Mendizabal (2015).

A non-profit research organisation based in Africa was studied by Ondari-Okemwa (2006) in respect to a knowledge management programme. She found that a focus on organisational KM becomes central when linked to superior performance, based on the factors of organisational creativity, operational effectiveness, and product and service quality. She analysed how continuous performance improvement is of higher demand by NPO in keeping with their vision of social responsibility. She predicted that KM, a new organisational management paradigm, will be increasingly adopted by organisations with the assurance of performance improvement, hence gaining competitive edge. Her emphasis was on human capital development. Training and development allow employees to acquire new knowledge, skills and capabilities, hence tacit knowledge. One important argument Ondari-Okemwa (2006) made was that an organisation does not possess absolute knowledge, so it collaborates with the outside world and other organisations to acquire knowledge. Collaboration, training

and learning, information centres, internet cafes, and senior management support are all KM activities within the organisations. Knowledge audits proved difficult due to the intangible nature of knowledge resources as well as a lack of technique to measure and audit. Another challenge for organisations is in attracting qualified knowledgeable managers, since they cannot offer high finances when compared to other profit-making organisations. She agreed that reliable and efficient information system serves as the basis for knowledge sharing and transfer. Ondari-Okemwa (2006) argued that learning organisations must realise and reward the time invested for thinking and learning. Goux-Baudiment (2009) identified that a good thinker has world exposure, through first hand observation/interaction, is multilingual, multidisciplinary, has open access to world-views across the boundaries of local culture, making him/her intellectually independent and a worthy asset for a think tank.

'Workshops, round tables, simulation of decision-making processes and other activities of national, European, international organisations and/or public institutions, consultation and other expert involvement methods, public participation advisory services, couching and facilitation techniques, research assistance activities, team-building sessions, interactive training sessions' (Pop, 2012; p4062) are the usual tools of knowledge creation for TTs.

Research organisations are affluent in intangible resources and their outcome is knowledge (Leitner and Warden, 2004). Related literature lacks to address management of intangible resources in R&D organizations (Pike *et al*., 2005). It is important to briefly mention here the way research and knowledge correspond, since think tanks are research intensive organisations with an aim of producing policy knowledge. Research must involve knowledge, whereas, the latter is focused on

‘knowing more’. According to Polanyi (1996); “Research is an intensely dynamic enquiry, while knowledge is a more quiet research” (Britton, 1983; p92).

### 2.4.4. **Knowledge resources, strategy and performance**

Contemporary organisations are facing a challenge to manage KR (Lee and Lan, 2011). Schiuma and Carlucci (2007) noted that KR’s are difficult to transfer, accumulate, inimitable, not substitutable, tacit in nature, synergistic, and not consumable, due to their use and their ways of combining and developing them. KR requires strategic consideration to allow organisations to perform. Marr *et al*. (2004) raised the question for performance indicators of KA’s. Thornhill (2006; 691) supports this, stating ‘what an organisation knows determines what it can do’ and has evaluated the relationship of KA’s in relation to organisational achievement.

Marr *et al*. (2004) used the entity view of knowledge with the tacit and explicit division and KM is primary for OP. They regarded KA’s as strategic levers for OP. They indicated a Performance Prism, Skandia Navigator, IC-Index, IC Audit Model and Intangible Asset monitor as key models found within the management literature to measure KA’s. Bakir, Sofian, Hussin and Othman (2015) also argued that empirical indicators could hardly capture ‘knowledge’, but knowledge management and the development of human capital estimates organisational effectiveness. An improved understanding of knowledge could be gained by understanding the impact of performance (Chang and Ahn, 2005). Continuously updating knowledge may be achieved two fold through continuous reflection on the work, and transferring experience (Lakomski, 2004).

### 2.4.5. **Resource based view and Knowledge based view**

Strategic management theories aim to describe the phenomenon of firm performance and determine strategic choices (Grant, 1996). Meanwhile, we cannot ignore that performance management is a relatively ignored sub-field of management and organisational studies (Macpherson and Jones, 2010). The resource based view (RBV) is particularly popular management theory at the organisational level of theory, where the unit of analysis is the organisation (Godsell, Martin, Johnson, and Guo 2012). Modifications from post industrial economies to knowledge economies have revised the management paradigms from RBV into knowledge based views (KBV) (Grant, 1997). A novelty of the knowledge economy lies in how theoretical (codified) knowledge has acquired a central place in late modern societies, which was not previously the case (Tsoukas, 2005). KBV explains the reason for organisations' existence, scope, organisational capability, decision-making processes and aims towards strategic collaboration (Grant, 1997).

Schiuma and Carlucci (2007) argued the increased competitive scenario requires more organisational intelligence embedded within process and products based on KR. They identified that RBV, competence-based view (CBV) and knowledge based view (KBV) provide strategic input or competitiveness from knowledge assets. Su, Peng and Xie (2016) used the tripod strategy (resource-based view, industry-based view, and institution-based view) to ascertain the effect of knowledge creation capability on OP.

RBV distinguishes between resources leading to performance and their combination varies from sector to sector and organisation to organisation (Mills and Smith, 2011). RBV, CBV, cognitive frame works theory, capability perspective, dominant logics and many other theories have been used to study KM (Kalling, 2003). In contrast, RBV

focuses on improving business strategy, and is considered the principal theory of strategic management (Armstrong-Flemming, 2015). KBV is strategic in nature, and is focused on performance driven mechanisms (Kalling, 2003). Tacit-ness in KBV is an important dimension, as a lack of transferability provides competitive edge (Kalling, 2003). The salient focus is more on knowledge, since according to KBV knowledge is of strategic value (Zack *et al*., 2009). The current literature is based on KBV or a capability view to fill the gap in the literature, which lacks the details of KM-performance link (Chang and Ahn, 2005). KBV's strategic positioning within the critical resource knowledge (Landry *et al*., 2016) makes it suitable for the present study. Moreover, Individual knowledge resources are scattered and may not provide a complete benefit, unless an integrated and knowledge based view supports the complete picture of knowledge resources, including tacit and explicit forms (Fu-Sheng, Chin-Chiung and Chi-Fang, 2017). Fu-Shen *et al*. (2017) argue that the uniqueness of an organisation does not lie with its unique knowledge, but with the use of its knowledge, as explained by the knowledge based view.

### 2.5. **Knowledge management**

Understanding various components of knowledge (beliefs, ground truth, values, experience, judgement and complexity) forms the foundation for a KM project (Deng, 2008). Knowledge management brings synergy by collating an individual's knowledge into organisational knowledge (Chourides *et al*., 2003). Al-Fehaid (2014; 2) used King's (2009) definition, which is stated as follows: "KM is the planning, organising, motivating and controlling of people, process, and systems in the organisation to ensure that knowledge-related assets are improved and effectively employed". One KM definition elaborates on this, stating that it is 'the endeavour to understand the value of what is buried in individuals' minds and transforming the value into a business

asset, which can be accessed and used by others to make business decisions' (Davenport and Prusak, 1998) cited by Armstrong-Flemming (2015).

Researchers have promoted KM on the basis of multidimensional gains (Nunes, Annansingh, Eaglestone, and Wakefield, 2006). Contemporary organisations have realised the importance of KM, as an 'umbrella term' for organisational management (Früauff *et al*., 2015). Though previously considered a branch of management science with roots in library science, computer science and information science, KM has turned into a developed field (Shah and Mahmood, 2013).

The need for KM appears as the KR's present all over the organisation provide ability to respond change (Choi, Poon and Davis, 2008). The modern needs of contemporary societies demand organisations to manage their KR in order to remain successful (Sinha, 2013). Unique knowledge grows through use, and the key to management is to know 'what to know', 'what to be used' and 'how to use it' (Smits and De Moor, 2004). According to Chang and Ahn (2005) the visibility of KA enhances the ability of the management, for example, electricity is seen only by its effects. They have also specified the measurement and valuation of KA's as one of the challenges of KM. Additionally, knowledge flow is usually a challenge in any organisation, as faced by an individual's resistance to knowledge sharing (Hassan *et al*. (2016).

External and internal multiplicities of the KM field add to its complexity. KM processes, practices, activities, strategies, styles, enablers, knowledge assets etc., are some of the dimensions that bring complexity in the KM literature. Most of these terms possess different titles, but have similar meanings with blurred boundaries. The complex nature of knowledge and KM serves to diversify the field (Spender and Scherer, 2007).

As argued by Spender and Scherer (2007), the philosophical underpinnings behind KM anxieties are yet to be found. Likewise, ‘connecting individual inventiveness to the firm’s strategic dynamic remains’ (p8), ‘ownership of the means of production’ (p8), ‘organisation as a dynamic socio-economic entity with a developing or evolving corpus of knowledge’ (p9), are the key anxieties in the KM literature. According to Spender and Scherer (2007), it was the fame of the phenomena of tacitness when the concept of KM developed further, and become distinct from the related fields. They presented another view of tacitness taken from Tywoniak which involves the dynamic nature of knowledge, personal embodied knowledge, socially embedded knowledge, common knowledge and explicit knowledge.

A learning model 70:20:10 is the representation of learning from experience 70%, 20% coaching and 10% typical class room learning and reading (Rodgers, 2014). Moreover, better quality and quantity of knowledge could contribute towards performance with increased experience. This could support businesses in maintaining speed with the changing environment. Rather than traditional training, internships better enhance capabilities. He added that training costs could be condensed by the proper choice of learning methods and are shifting more towards experience based learning. He advocated that social learning styles could impact organisations more positively.

### 2.5.1. **Trends of knowledge management publications**

Knowledge management was extensively published in 2002 within the field of business and management (Chourides *et al*., 2003). Research interest in the field of KM is increasing, but the related journals are still under recognised (Ma and Yu, 2010). To present the increasing trend of knowledge management, Grant (2012) performed

a bibliometric analysis between 1999-2009, using a ProQuest database, and found 1500 citations per year with a total of 26,000 citations. Defining keywords and search strings is important for conducting a more systematic literature review (Tranfield *et al*., 2003). For the search string “knowledge management” Summon (search engine of University of Huddersfield, UK.) resulted in a trend of publications originating from 1932, with one publication on average per year until the 1980s. By the end of 1980s, the curve for the significance of KM began to rise. During the 1990s and 2000s the curve remained steep and reached the highest number of publications at 8961 for 2010. After this period, it gradually decreased to 8890 for 2011, 8051 for 2012, 7773 for 2013 and 6345 for 2014. The graph is shown below:

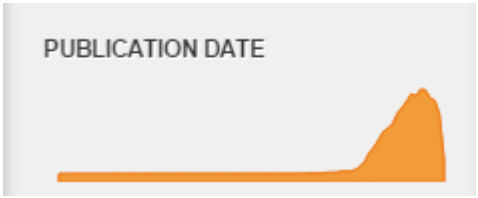


Figure 2-4 Trend of KM (Summon, 2015)

Although the graph feature is no more available on summon after 2015, but the number of publications showing an increase afterwards. For year 2015 number of publications returned against search string “knowledge management” are 8,877. For year 2016 it is 8,369 and for year 2017 till August 2017 it is 3,387. This could be presented in the graph below

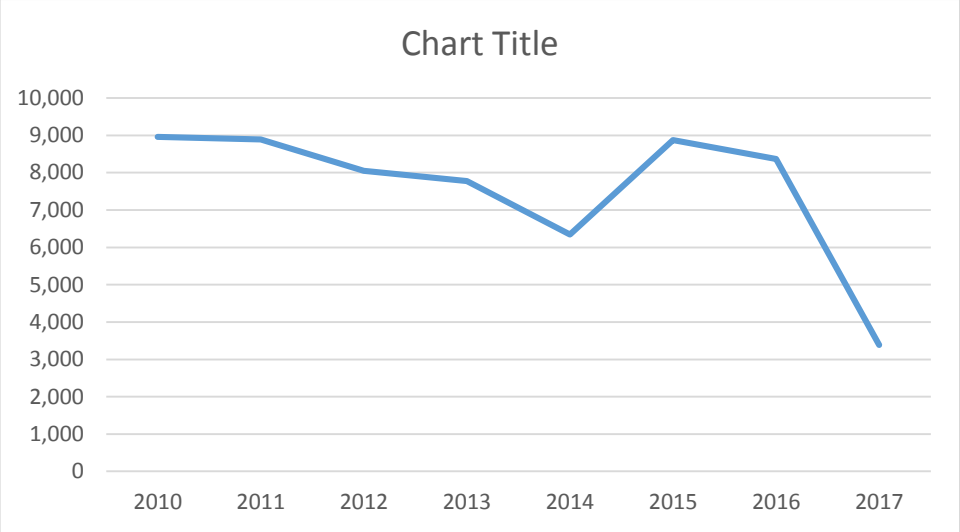


Figure 2-5 Trends of KM (Summon, 2017)

### 2.5.2. **Multidisciplinary approach of knowledge management**

Knowledge management is wide spread across various disciplines. For example, Summon gathered the following disciplines (table 2.1) where KM publications have appeared. The highest number of KM publications is under the discipline of business, with 23,235 publications for 2015, 529,845 publications for 2016 and 537,494 publications for year 2017. Subsequently, the second and third most populous disciplines were engineering and computer science, with 14,211 and 13,369 publications for year 2015. Medicine (422,268), Engineering (382,474) and economics (328,754) remained at top according to number of publications for year 2016. Again for year 2017, Medicine (536,745), Engineering (413,365) and economics (346,557) proved as disciplines with most publications. The rest of the disciplines are far behind, but the number of disciplines in the list reflects the external dimensions of KM.

Based on knowledge hierarchies and the differences of data, information and knowledge Früauff *et al*. (2015) discerned that the interdisciplinary approach of KM is a challenge. It is also a common practice in KM studies to use cross disciplinary literature to formulate the argument. For example, Artail (2006) raised the need for IT

research to make use of behavioural science, which increases the complexity and multi-dimensionality of the field, which in turn requires simplicity. Ma and Yu (2010) claimed that high interdisciplinary interaction results in blurred boundaries of KM. Multidisciplinary teams face challenge of knowledge integration (Halilem, amara, Landry, 2013). A key tool in the management sciences research-literature review process, manages the diversity of knowledge inherent within the specific inquiry (Tranfield *et al*., 2003). Witt (2011) studied KM for social sciences and the interdisciplinary approach. He argued that a focus on interdisciplinary research remains within knowledge production and the complexity of problems demands for more information over the range of disciplines.

Table 2-1 Disciplines over which KM is spread

| S.No. | Discipline | 2015 | 2016 | 2017 |
|---|---|---|---|---|
| 1 | Agriculture | 296 | 81,321 | 95,667 |
| 2 | Anatomy and physiology | 119 | 49,638 | 71,895 |
| 3 | Anthropology | 467 | 38,357 | 43,173 |
| 4 | Applied sciences | 479 | 9,756 | 10,316 |
| 5 | Architecture | 1,033 | 20,461 | 22,852 |
| 6 | Astronomy and astrophysics | 9 | 2,060 | 3,190 |
| 7 | Biology | 401 | 142,030 | 200,293 |
| 8 | Botany | 14 | 20,030 | 26,044 |
| 9 | Business | 23,235 | 529,845 | 537,494 |
| 10 | Chemistry | 189 | 59,772 | 78,681 |
| 11 | Computer science | 13,369 | 167,316 | 175,272 |
| 12 | Dance | 11 | 1,933 | 2,067 |
| 13 | Dentistry | 20 | 10,915 | 12,748 |
| 14 | Diet and clinical nutrition | 55 | 18,764 | 25,730 |
| 15 | Drama | 28 | 10,136 | 11,013 |
| 16 | Ecology | 182 | 98,625 | 115,153 |
| 17 | Economics | 7,576 | 328,754 | 346,557 |
| 18 | Education | 4,045 | 157,786 | 178,266 |
| 19 | Engineering | 14,211 | 382,474 | 413,365 |
| 20 | Environmental sciences | 370 | 124,156 | 139,794 |
| 21 | Film | 53 | 6,705 | 6,924 |
| 22 | Forestry | 51 | 16,844 | 19,367 |
| 23 | Geography | 591 | 51,851 | 59,673 |
| 24 | Geology | 92 | 25,050 | 31,390 |
| 25 | Government | 1,046 | 43,904 | 46,106 |

| | | | | |
|---|---|---|---|---|
| 26 | History and archaeology | 2,995 | 102,254 | 110,149 |
| 27 | International relations | 219 | 23,567 | 25,551 |
| 28 | Journalism and communications | 373 | 19,522 | 21,345 |
| 29 | Languages and literatures | 361 | 29,977 | 34,636 |
| 30 | Law | 774 | 101,515 | 107,335 |
| 31 | Library and information science | 3,742 | 51,863 | 55,841 |
| 32 | Mathematics | 559 | 28,310 | 31,280 |
| 33 | Medicine | 1,369 | 422,268 | 536,745 |
| 34 | Meteorology and climatology | 22 | 9,473 | 13,322 |
| 35 | Military and naval science | 400 | 13,314 | 14,876 |
| 36 | Music | 171 | 12,179 | 12,805 |
| 37 | Nursing | 593 | 54,630 | 59,242 |
| 38 | Occupational therapy and rehabilitation | 26 | 6,373 | 8,211 |
| 39 | Oceanography | 25 | 22,643 | 26,946 |
| 40 | Parapsychology and occult sciences | 1 | 144 | 171 |
| 41 | Pharmacy, therapeutics, and pharmacology | 235 | 50,550 | 60,620 |
| 42 | Philosophy | 544 | 27,982 | 31,839 |
| 43 | Physical therapy | 21 | 7,632 | 8,718 |
| 44 | Physics | 192 | 18,624 | 31,785 |
| 45 | Political science | 1,145 | 85,930 | 91,199 |
| 46 | Psychology | 1,028 | 81,798 | 96,630 |
| 47 | Public health | 1,002 | 158,216 | 181,716 |
| 48 | Recreation and sports | 85 | 12,807 | 14,518 |
| 49 | Religion | 872 | 14,012 | 15,501 |
| 50 | Sciences | 1,157 | 67,910 | 150,087 |
| 51 | Social sciences | 1,639 | 65,031 | 74,403 |
| 52 | Social welfare and social work | 719 | 75,356 | 86,095 |
| 53 | Sociology and social history | 884 | 59,356 | 68,426 |
| 54 | Statistics | 367 | 24,718 | 28,797 |
| 55 | Veterinary medicine | 19 | 17,060 | 21,772 |
| 56 | Visual arts | 192 | 11,801 | 12,639 |
| 57 | Women's studies | 876 | 22,187 | 24,199 |
| 58 | Zoology | 40 | 31,714 | 43,120 |
| Source: (Summon, 2015, 2016, 2017) | | | | |

### 2.5.3. **Multidimensional nature of knowledge management**

The wide scope of KM is external and also maintains the level of complexity internally, a glimpse of which is reflected by the following figure 2.5.

Choi and Lee (2003) defined the multiple dimensions of KM methods as (1) existing learning – updated learning, (2) innovators, explorers, exploiters and loner, (3) tacit and explicit orientation, (4) codification – personalisation, (5) conservative and aggressive styles, (6) cognitive and community styles. Horwitch and Armacost (2002)

questioned the success of KM due to its complexity. Attention should be paid to the dimension under consideration while discussing KM.

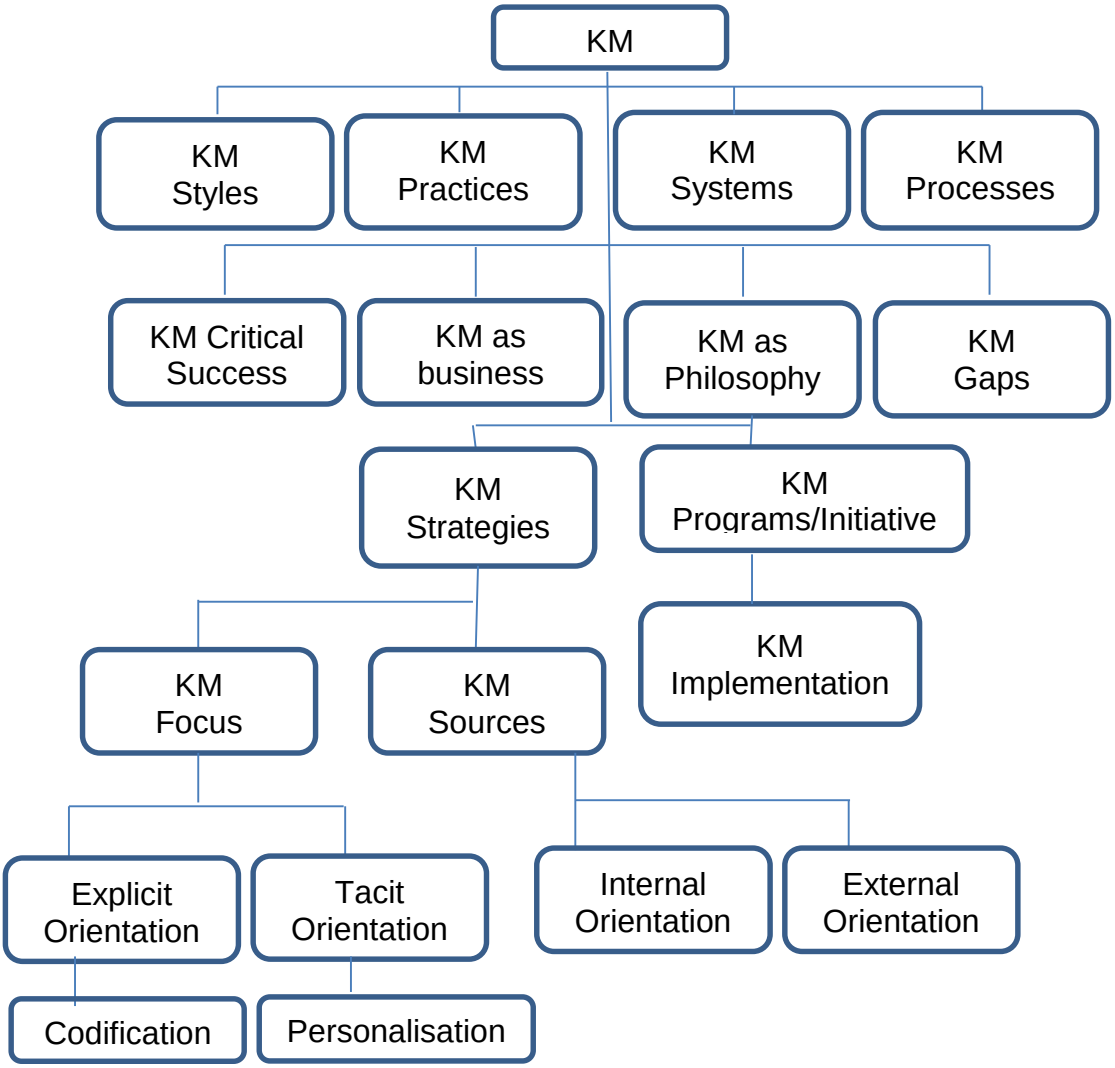


Figure 2-6 KM Subjects Range

Contrary to the above, Schwartz (2006) illustrated KM from the writings of Aristotle, and presented a complex layer upon layer model. Considering Buchholz (2006), Butler (2006), Dunne (1993) and Snowden (2006) analysis of Aristotle's theories, several elements of KM were listed, to present a holistic view of KM and how it takes shape from inside the philosophical core to its implementation. Hung and Chou (2005) developed a knowledge management maturity model to analyse the state of KM within

defined settings. The five levels of KM maturity are - initial, repeatable, defined, managed and optimised.

According to Shah and Mahmood (2013; 5), the socio-cognitive aspects (threat and challenge) are historically related to KM. They draw on the value of individuals for organisations due to the knowledge they possess, hence making the KM effective through their retention. Furthermore, “Human involvements in organisation(s) are context bound that differs with change in situation. That is why, personality characteristics and situational characteristics are important in KM.”

Gerogiannakis, Sintichakis, and Achilleopoulos (2003) discussed how the continuous interaction of external stimuli and internal experience forms organisational competence. Different types of data together serve as the basis of organisational memory. They analysed how organisations keep a combination of structured and unstructured knowledge with a ratio of 20:80. Despite the high percentage of unstructured knowledge, this is mostly ignored by organisations. They presented an organisational knowledge pyramid (see above figure 2.6), with several levels of knowledge storage and dissemination within an organisation. They argued that a KM mechanism of an organisation should be capable of avoiding corruption of knowledge, i.e. providing updated timely information to all.

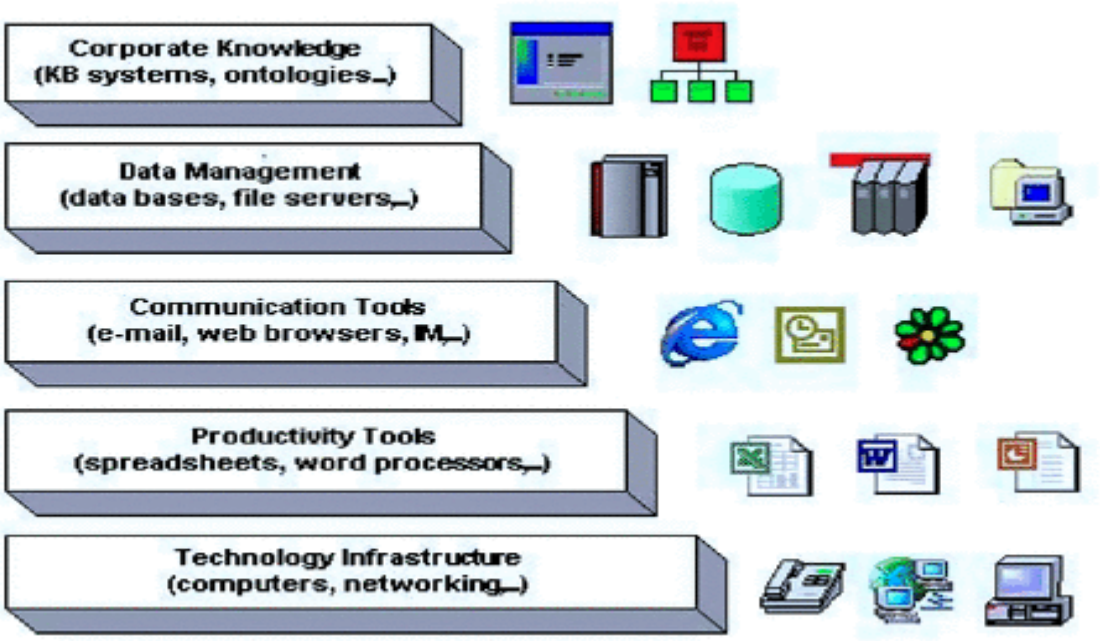


Figure 2-7 Organisational knowledge pyramid (Source: Gerogiannakis *et al*., (2003))

### 2.5.4. **Knowledge management in think tanks**

An evaluation and analysis of public policies is the key aspect of think tank organisations (Haq and Ali, 2004), making it evident that knowledge management processes have some relation. To begin the search for whether or not any studies specifically about KM in think tanks were already there in the literature, different search queries were applied over several academic search engines.

Table 2-2 Search results for 'knowledge management in Pakistani think tanks', March 2013

| Search string | Search bases | Search results | journal articles | Relevant result on title/abstracts | Full text relevant result |
|---|---|---|---|---|---|
| 'Knowledge management in Pakistani think tanks' | Summon | 18 | 1 | 0 | 0 |
| | MBS | 0 | 0 | 0 | 0 |
| | Thomson Reuters | 0 | 0 | 0 | 0 |
| | ScienceDirect | 46 | 30 | 3 | 0 |
| | ProQuest | 0 | 0 | 0 | 0 |

(Source: listed search engines in the table; dated March 2013)

A similar search was again conducted in October 2016.

Table 2-3 Search results for 'knowledge management in Pakistani think tanks', Oct 2016

| Search String | Search engine | Search results | journal articles | Scholarly and peer reviewed | Relevant result on title/abstracts | Full text relevant result |
|---|---|---|---|---|---|---|
| **"**knowledge management in Pakistani think tanks**"** | Summon | 0 | 0 | 0 | 0 | 0 |
| Knowledge management in Pakistani think tanks | Summon | 1360 | 52 | 47 | 1 | 0 |

### 2.5.5. **Best Practices of knowledge management in think tanks of developing and developed countries**

Several types of ownership structures, legal status, missions, organisational structure and output could be the features of a research organisation (Leitner and Warden, 2004). Furthermore, they are mostly non-profit and mission oriented. Considering the knowledge intensive nature of these organisations, it is difficult to capitalise their investments. Knowledge management is being adopted by such organisations as a management instrument to oblige the authorities. Moreover, intangible resources and outcome, along with a lack of measurability, leaves research organisations with great potential in regards to knowledge management. R&D activity is nurtured by the flow of knowledge across organizational boundaries (Pike *et al*., 2005).

Most Asian countries have the common goal of moving towards a knowledge economy, whereas many are behind in their use of internet and information technology (Al Hawamdeh, 2005). The literature reflects variance in human attitudes towards KM over distinct geographic areas, even varying from Middle East Asia to South East Asia

(Shah and Mahmood, 2013). The position of Pakistan on the graph of KM is a question. Even considering national goals at the top level of the country, hardly any point is visible in regards to KM. Shah and Mahmood (2013) have further argued that KM is still not embraced in Pakistan, which faces a good opportunity to gain its benefits. The dream of the country, Pakistan, was carved by knowledgeable leaders, and the foundation was laid on specified knowledge, with the aim of creating, utilizing, and storing it to raise up knowledgeable generations (c.f. Iqbal, 2013).

Ziring (1997, 607) writes that “Pakistan was removed from the womb of one of the most successful imperial systems in human experience, but it began its life in an ambience totally out of phase with its incubation.” Only asset, along fewer material resources, were, sincere, capable and thoughtful leadership, vision for nation state, and a religio-cultural motivation. Unfortunately, all three of these assets weakened in minimum time, leaving behind a state of crisis. Along with several other issues with governance, administration and management, in addition to numerous politico-socio-economic crises, ignorance towards KM is another problem for the emerging country Pakistan. The failure of reconciliation of The Pakistan Idea and The Pakistan Reality (Ziring, 1997) is the first prominent KM gap, which is a cause for the decline of the state. Pakistan is the sixth most populated country in the world, with a population of more than 196 million (Worldometers, 2017), and is facing poverty (Asian Development Bank, 2017), a component of poor knowledge management in the country.

The PhD has shown a phenomenal increase over the last decade, yet still output in regards to management science is very limited and to date, only 2 studies relevant to knowledge management and 4 relevant to learning have been conducted. The sole educational authority of country, who has the motto ‘Facilitating institutes with higher

learning to serve as an engine of Growth for the Socio-Economic Development of Pakistan' have presented little concern for knowledge management (Higher Education Commission, Pakistan, 2017).

Among the limited studies about KM in Pakistani organizations, one is entitled 'Knowledge Management at Educational Institutions: Case of Pakistan'. This study reflects the situation of at least one of the major knowledge transmitting bodies in Pakistan. However, in some cases, and along with the growing trends, universities may also be considered knowledge producing bodies, in view of the increase in their research interests and the development of research centres at the universities. Such a situation paves the way for an economic drift, if knowledge management activities between universities, research and development organization and industries are linked in an appropriate manner (MIKULECKÝ, Lodhi and Mastorakis, 2009). Saeed, Tayyab, Anis-Ul-Haque, Ahmad and Chaudhry (2010) conducted a study entitled 'Knowledge management practices: Role of organizational culture', which is one of the pioneering studies in the Pakistani context. They have indicated that KM is the key challenge towards management practices in today's world. The sample set is composed of 1500 managers from 50 organizations, who belong to banking, software telecom, post, transport, petroleum and the food sector.

Sandhu, Lodhi and Memon (2011) used Skandia Navigator to develop a national level tool to envisage Pakistan's intellectual capital. A well thought IC management tool for Pakistan is based on five indices, which are: Pakistan National Financial Index (PNFI), Pakistan National Market Index (PNMI), Pakistan National Human Index (PNHI), Pakistan National Process Index (PNPI) and Pakistan National Research Index (PNRI). The indices are based on 3-4 indicators, which lack comprehensiveness and data strength. The study suggests the adoption of management tools by the policy

makers, with a view to handle the interdependencies of the global environment, or in other words, they need KM to meet the challenges of the knowledge era. This is further supported by the emphasis on policy makers, who need to give due importance to tangible and intangible national resources.

Associating library sciences with the field of KM is not new. Shah and Mahmood (2013) have empirically studied academic librarian attitudes towards KM in Pakistan. They found the greater the self-efficacy and, self-esteem in individual, the more capable they are to cope with challenges and remain positive towards KM. In a study of the Intellectual Capital and Research Performance of Universities in Southern Punjab-Pakistan, Awan and Saeed (2014) studied how the empirical evidence of the impact of intellectual evidence on research performance, in the context of universities, is lacking and is rarely tested in Pakistan's context. They found all the components of Intellectual capital (human capital, structural capital, and relational capital) have a significant impact on research performance, whereas human capital is much more significant.

### 2.5.6. **Formal and informal knowledge management**

Although knowledge and knowledge processes have always existed in organisations, an explicit emphasis on them appeared in the 1990s (Kalkan, 2017). Organisations have systematic characteristics (Spender and Scherer, 2007) and hence a demand for formal procedures. Lee and Choi (2003) explained formalisation as the implementation of formal rules, policies and procedures that lead to decisions and working relationships. According to Mason and Pauleen's (2003) definition, knowledge management is a systematic and explicit activity. Alternatively, Durst and Edvardsson (2012) argued that formal KM is lacking in small organisations. Nunes *et al*. (2006)

argued that the ignorance of small organisations towards KM is due to informality in knowledge related processes. Whereas, Bhosale and Shinde (2015) viewed it as, informal tacit knowledge sharing, and this exist at high degree in small organisation. Agostino *et al.* (2012) argued that complex social problems require interdisciplinary research, which in return demands for collaboration and an informal management style. Jones *et al*. (2007) argued that the formality of KM would lead to an improved performance.

Hassan *et al*. (2016) studied the knowledge sharing behaviour of business teachers in Pakistani universities. They argued that formal and informal knowledge sharing practices improves knowledge, skills and abilities, resulting in better teaching practices. Moreover, informal tacit knowledge sharing supports teachers' knowledge building process. Lee and Choi (2003) made comparisons to the formality and the flexibility required by knowledge work. They argued that informality allows collaboration with the human capital for KM. It could be effective for small organisations to make effective and simultaneous use of both informal KM and formal KM (Alegre *et al*., 2013). Diversity and flexibility of KM requires a dual approach; formal and informal, people and system driven, paper based and electronic, wholly or partially centred on KM (Steyn and Kahn, 2008). As counter view, Jones *et al.* (2007) argued for the need for formality to embed KM in organisational setup. According to Landry *et al.* (2016) increasing KM practices (formality) will increase the use of mixed knowledge when compared to tacit knowledge and codified knowledge as compared with tacit knowledge. Tacit knowledge is converted to tacit knowledge through observation, imitation and practice, in cases where an apprentice learns from the master (Tsoukas, 2005). Additionally, the above varies through degree of formality to informality.

The definition of tacit knowledge also remains tacit, and the objects out of focus may persist in knowledge and have importance within context, thus, presenting the tacit form of knowledge (Cowan, David and Foray, 2000). Furthermore, they maintain that tacit knowledge is considered a strategic asset in the field of management and is crucial for a modern economic analysis of human behaviour. They discussed how quality of tacitness is not inherent in knowledge, i.e. tacitness varies in individuals. Moreover, knowledge does not travel freely. The cost lies with tacit knowledge that resides in the head of the generator. They were convinced that tacit knowledge departs with employees and intellectual property right conflicts as tacit knowledge remains hidden. Ownership rights are blurred in knowledge intensive organisations as main asset is employees mind and knowledge (Kvaløy and Olsen, 2008). Cowan *et al*. (2000) argument, with reference to explicit knowledge, is that prior knowledge may also be required to interpret the code. It also varies with individual understanding and background, thus giving cultural and social context due importance in the discussion of codified knowledge. Cowan *et al*. (2000) concluded that knowledge measures are vague.

Communities of Practice (CoP) might be used for the purpose of managing organisational knowledge, by facilitating the sharing of tacit knowledge (Lakomski, 2004). Lakomski considered how CoP serves as part of an organisational infrastructure and helps it to become a learning organisation. He analysed the dynamic nature of knowledge and how it creates more dependency on tacit knowledge, rather than expert knowledge. He suggested that CoPs exist naturally, but organisational control makes them more effective to organisational purposes. Kothari and Wathen (2017) studied engagement of knowledge users in the research process and argued

that the formal and informal knowledge sharing of researchers and knowledge users enhances understanding.

Durst and Edvardsson (2012) argued that the cumbersome nature of routine operations in SMEs might lead to an ignorance of strategic issues. This situation, when faced with a lack of financial and expert resources, does not allow the knowledge of key employees to be shared. That knowledge might be physically stored or informally shared in casual conversations. The need for knowledge management comes with the requirement of formalising knowledge processes (Natarajan and Bagwan, 2016). KM supports the understanding of 'what they know' and how to use it while reducing reinvention (Natarajan and Bagwan, 2016). Gerogiannakis *et al*. (2003) found the dual need of organisations is formality of KM in a changing environment and informality of knowledge management, considering the human factor. Kalkan (2017) strongly argued that knowledge management development is highly required for universities, along with an improved perception for knowledge processes. Furthermore, the non-systematic implementation of knowledge management is taking it towards a management fad.

### 2.5.7. **Knowledge management enablers**

Bukh and Johanson (2003) and Schiuma and Carlucci (2007) considered three knowledge management enablers, namely human capital (HC), structural capital (SC) and relational capital (RC). Human capital has cognitive abilities that are utilized to generate new solutions, structural capital tests and codify new solutions. Additionally, relational capital provides an evaluation of new solutions through stake holders. Below diagram presents the combination of enablers used in this study based on their popularity. Human, structural and relational capital were the terms used by Agostino,

Arena, Azzone, Dal Molin, and Masella (2012) followed by Awan and Saeed (2014) who categorised them as intellectual capital. They argued that the literature had used the term intellectual capital as a synonym of knowledge asset, intellectual property/asset and intangible asset. Intellectual capital is defined as "a group of knowledge assets that are owned and controlled by an organisation that create value" (Alipour, 2012). Alipour (2012) followed the categorisation of human capital, structural capital, organisational capital, social capital and stakeholder capital. The three classes of resources analysed by Nikolaou (2017) are referred to as physical capital resources, human capital resources and organisational capital resources. This unique combination of heterogeneous resources of an organisation enables a competitive advantage. Zin, Adnan and Abdullah (2017) classified intellectual capital into human capital, organisational capital, relational capital (customer and social), technological capital and spiritual capital.

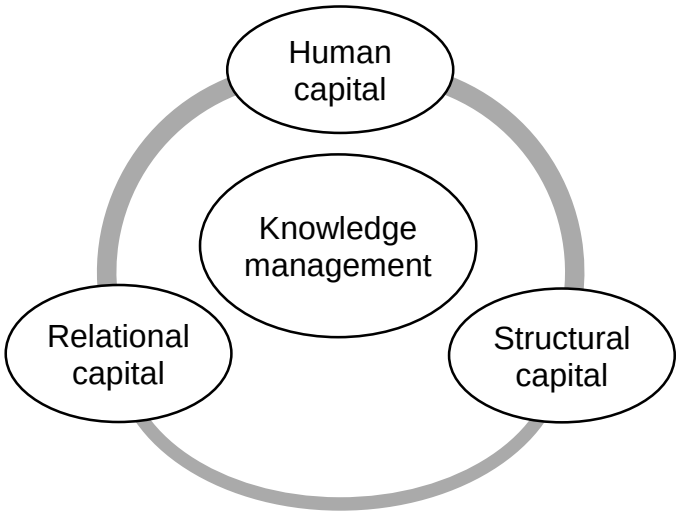


Figure 2-8 Knowledge management enablers

The cognitive abilities of human capital generate new hypotheses which are tested and codified, making use of organizational capital, whereas relational capital comes in during the evaluation phase (pike *et al*., 2005). Myrna (2012) described KM

components with sub-divisions of human capital, operational capital and structural capital.

#### 2.5.7.1. **Human capital**

A company must be considered a living organism, rather than a machine, having a collective sense of identity and purpose (Nonaka, 2007). Furthermore, knowledge creating companies are focussed on ideals and ideas, to innovate the world according to a particular vision. Moreover, the creation of new knowledge means continuous personal and organisational self-renewal. Frequent dialogue and common cognitive ground within a team are inherent characteristics of a knowledge creating company. Dynamic interaction among different roles results in new knowledge creation. Nonaka explained how people actively interpret new knowledge to fit into their context, which creates a shift in meaning. He concluded that measuring the value of new knowledge in knowledge creating companies has more of qualitative nature. A team plays a central role in knowledge creating companies. Knowledge creating organisations, like think tanks, are mainly doing research- a creation of human activity (McCormack, 2000). The core asset of R&D organizations is human capital, since it includes the experience, knowledge, judgement, abilities and skills of individuals in an organizational context (Pike *et al*., 2005). Nonaka emphasised that middle managers are bridge between visionary ideals and the chaotic realities of the front liners. Middle managers are synthesising tacit knowledge of both the top management and front liners, making it explicit and internalising it. They are true knowledge engineers of the knowledge creating company. Yanow (2004), however, raised an important question that organizations rarely bother to acquire knowledge from front liners because of their lower status. Investment in people will improve KM by providing a platform known as 'Ba' by Nonaka, which facilitates the creation, development and sharing of both explicit

and tacit knowledge (Chourides *et al*., 2003). ‘Ba’ reassures the common beliefs and values, whilst- having open and free transfer of knowledge, which becomes with maturity. Rodriguez (2013) maintained that the development of new knowledge in- a knowledge intensive environment relies heavily on human capital. One reason, as explained by Hassan et al. (2016), is that employees realise, develop and use knowledge while working.

#### 2.5.7.2. **Structural capital**

One of the knowledge management enablers is structural capital (Myrna, 2012). Schiuma and Carculli (2007) classified structural capital into two categories of physical infrastructure and virtual infrastructure. Structural capital mainly encompasses financial assets, technological capital, and other physical assets.

##### 2.5.7.2.1. **Financial capital**

Other structural and technological components primarily depend on finances. Increased financial lack creates competition and demand for value. Public institutes require external funds to drive their mission oriented research (Agostino *et al*., 2012). Moreover, interdisciplinary and financial struggles pose challenges for research institutions in managing their core processes, knowledge creation and continuous improvement in support and managerial structure. Additionally, a lack of financial capital could be a hindrance for knowledge sharing (Durst and Edvardsson, 2012)

##### **2.5.7.2.2. Technological capital**

One of the needs for knowledge management to be successful as a business strategy is proper exploitation of the technological infrastructure (Kalseth and Cummings, 2001). Moreover, Kalseth and Cummings (2001) discussed how KM makes use of structural resources for continuous improvement. Yea-Wen *et al*. (2015) argued that

organisational profits rely more on intangible assets than tangible assets. They demanded that organisations need to align their KM strategy with a structural framework to ensure proper knowledge handling. Considering the importance of the technological infrastructure authors like Mills and Smith (2011) considered it as a distinct KM enabler. Lakomski (2004; pS91) discussed three myths associated with knowledge sharing, which are "(1) build a central electronic database and people will use it; (2) technology can replace face–to– face interaction; and (3) create a learning culture first". Liao (2003) also argued that ICT infrastructure supports knowledge sharing. In-spite of technological development in the field of KM, knowledge managers require in-depth engagement with knowledge development processes to discover the business values of technological opportunities (Smits and De Moor, 2004). Contrarily, Deng (2008) argued that an over-reliance on technology might adversely affect the desired outcome in small firms.

2.5.7.3. **Relational capital**

Neither any organisation nor individual exists in a vacuum; they exist in society and develop relationships with each other. Businesses have their own motives to build these relationships. The aim of strategic relations is explained by knowledge based

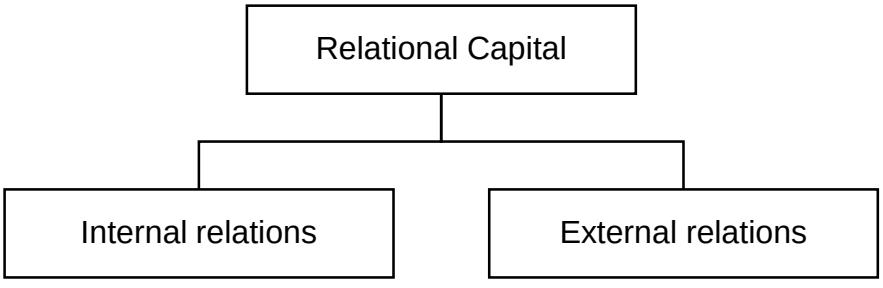


Figure 2-9 Categories of relational capital (Source: Awan and Saeed, 2014)

theory (Grantt, 1997). The need for collaboration is highlighted by Agostino *et al*. (2012) for interdisciplinary research to address complex social problems. Additionally,

Pop (2012) emphasised the requirements of national and international collaborations for think tank organisations. Ondari-Okemwa (2006) provides the reason for collaboration, since an organisation possesses limited knowledge and needs to link with the outside world.

Relational capital could be divided into two forms of capital - internal relations and external relations (Alipour, 2010; Awan and Saeed, 2014). Internal relations are formed from team building and a knowledge resource-conducive environment. External relations are composed of public relations, social capital, customer relations, stakeholder relations and/or collaborations. This is also known as the customer relationship and with a wider scope could turn into a stakeholder's relationship (Awan and Saeed, 2014). Collaboration is among the drivers of knowledge management, as analysed by Spender and Scherer (2007). Lee and Choi (2003) argued that collaboration is the result of the informality of human capital. Elucidating theory development from qualitative research, Klag and Langley (2013) described how social connectedness has an impact on research and the researcher in the form of learning from peers, both formally and informally. In explaining R&D dynamics, Pike *et al*. (2005) concluded that human capital influences organizational/structural capital, which in turn influences relational capital.

## 2.6. **Strategic relationships of knowledge management**

Research has distinguished two strategic relationships of knowledge management within organisations; first, the relationship of KM and organisational strategy, and secondly, the relationship of KM and organisational performance. Both of these relationships are discussed in the subsections below, followed by a section where the three concepts are discussed together.

### 2.6.1. **Knowledge management and organisational strategy**

Strategies are devised to increase the effectiveness and integration of knowledge management and business strategy (Yea-Wen *et al*., 2015). Strategy is a high priority for organisations (Mintzberg, 1987) and continuously changes with the dynamic environment and changing resources. A change of focus from tangible resources to knowledge resources poses a question for strategy to take shape accordingly. It was argued by Marr *et al*. (2004), citing Kaplan and Norton (1996), that management approaches are importantly linked with organisational strategy. Bhosale and Shinde (2015) emphasised direct link of knowledge management with organisational strategy. Bamford and Greatbanks (2010) proposed a quality deposit approach to organise valuable knowledge in organisational memory to adopt change with the desired strategy.

Dandira (2012) refers to roots of the word ‘strategy’, which was adopted from the Greek word ‘Strategia’, which means ‘general ship’. Strategy is the way through which objectives are achieved, or in a more refined mode, it is the logic of experience and an understanding of the past and future (Markides, 2012). No organisation can offer every product and service to everyone; they have to choose their offerings, as strongly argued by Treacy and Wiersema (1995). They further highlighted how value discipline and strategic goals would differ. Value discipline would define the scope of the organisation and what it does, leaving the ‘how’ question for organisational strategy.

Lin and Tseng (2005) considered organisational knowledge as unique, having a specific domain which needs to be handled in a specified way. Strategy is related with the handling of these unique resources in a carefully devised way, suitable for the specified domain. KR has to be valued strategically to take its full benefit and make the organisation perform. KM practices must be in line to OS (Zack *et al*., 2009). The

first of the five KM strategies identified by Wiig (1997) is ‘Knowledge strategy as a business strategy’, which focuses on the knowledge process at each step of the business. Kalseth and Cummings (2001) argued that KM works as a business strategy as well as a developmental strategy. KM, aligned with organisational strategy (OS) will underpin suitable processes, functions, methodology, technology, behaviour and structure in reference to strategic resource knowledge to achieve OP. According to Steyn and Kahn (2008), the alignment of KM strategy with business strategy will define the positive effects of KM implementation. Implementing KMPs is relatively less complicated than understanding the factors of influence (Al-Fehaid, 2014) and KM is mostly treated as a strategic initiative rather than economic investment (Deng, 2008). Horwitch and Armacost’s (2002; 28) definition for KM is "The practice of creating, capturing, transferring, and accessing the right knowledge and information when needed to make better decisions, take actions, and deliver results in support of the underlying business strategy”. They found the roots of knowledge management in army intelligence services. Furthermore, their four keys to overcome the fear of KM failure are: (1) make KM serve your strategy, (2) drive KM right from the top (3) rather than distributing brokerage knowledge, and (4) make use of technology, deriving from the clear cut relationships of organisational strategy and KM. According to Durst and Edvardsson (2012) small organisations lack an explicit KM policy at the strategic level and emphasise more on tacit KM. Sinha (2013) found one of the factors for improving KM is strategic planning.

Chourides *et al*. (2003; 37) found critical factors emerging from strategy in reference to KM, which are tabulated as follows

Table 2-4 Strategy critical factors

| Functional area | Focus | Critical factors |
|---|---|---|
| Strategy | Competitive advantage | Need for investment "faith"<br>Research the knowledge environment<br>Determine knowledge priorities<br>Develop "parallel" KM strategy<br>Focus on future (not present or past)<br>Pursue KM as a "premium strategy"<br>Need for leadership commitment and activity<br>Carry out people audit and "people portfolio matric"<br>Appoint dedicated/specialist KM leader<br>Pursue "collapsed hierarchy" organisation structure<br>Develop "rapid response" capabilities<br>Develop organisation "flexibility, and velocity"<br>Focus on people and performance (rather than business)<br>Develop key performance measures |

Source: (Chourides *et al*., 2003; 37)

Knowledge management is critical for the formulation and evaluation of business strategy, considering the strategic significance of knowledge (Chourides *et al*., 2003). They found that there are still many question marks in relation to KM and business strategy. Rasula, *et al*. (2012) indicated KM process enhances OP and may require change in OS, processes, structure and technical needs for maximum gain.

Four strategic gaps conceived by Myrna (2012; 136) are "1.Mismanaging people who do not implement as required. 2. Undermining personal motivation and ownership. 3. Losing momentum in the face of daily operational needs. 4. Failing to accept how the ''real world works" have clear overlap with KM components: human capital, operational capital and structural capital. Thus, KM integrates with OS for improved performance (Carrillo, Robinson, Anumba, and Al-Ghassani, 2003). IMPaKT framework of Carrillo *et al*. (2003) recognises KM alignment to organisational strategy. Schiuma and Carlucci (2007) share this view, including a concern for OP objectives. Mills and Smith (2011) established KM usage as a strategic decision. Moreover, Armstrong-Flemming

(2015; 11) cited Snyman and Druger (2004) argument; “strategic knowledge management must be embedded in business strategy and becomes integrated with organisational performance”. Whereas Lu (2017) argues that the emphasis of knowledge management remains from a strategic point of view.

Crossan *et al*. (1999) studied strategic renewal, which helps organisations to learn according to the demands of a changing environment. They argued that competition of scarce resources between exploration (new learning) and exploitation (using previous learning) creates tension. Experts exploit past knowledge, whereas, innovators/entrepreneurs explore new knowledge and cater towards change. It is the knowledge worker who has intuition and interprets for organisations. They granted that it is the level of interpretation which flourishes with interaction, and is context specific. They explained how to be an expert takes a long time, and a lot of knowledge to take conscious learning and practice, but afterwards it becomes obvious since it takes the form of tacit knowledge. They further described how individuals come and go, taking their individual and group learning with them, while learning embedded in organisational systems, structures, strategy, routines, prescribed practices remains within those systems. Organisational memory grows with organisational age. Formalising interaction and systematic communication takes root as the organisation becomes mature. Intuition, interpretation, integration and institutionalisation, are the levels of 4I framework of organisational learning. Organisational operations become efficient with institutionalisation for a healthier translation of organisational vision taken from the founder. Personal interaction developed by knowledge management achieves organisational strategy (Chourides *et al*., 2003). Spender and Scherer (2007) claimed that individual-organisation interaction is ignored in the extant KM literature.

Entrepreneurial success depends on two streams of thinking: first, entrepreneurial thinking (which brings forth innovative ideas) and second, strategic thinking, which turns it into an on-going business (Jelenac and Swiercz, 2011). Furthermore, strategic thinking process can serve as an effective learning method that does not occur frequently and takes long to reflect. They defined strategic thinking as involving creativity and intuition to develop a vision, then translating it into methods and procedure, differentiating two different extremes.

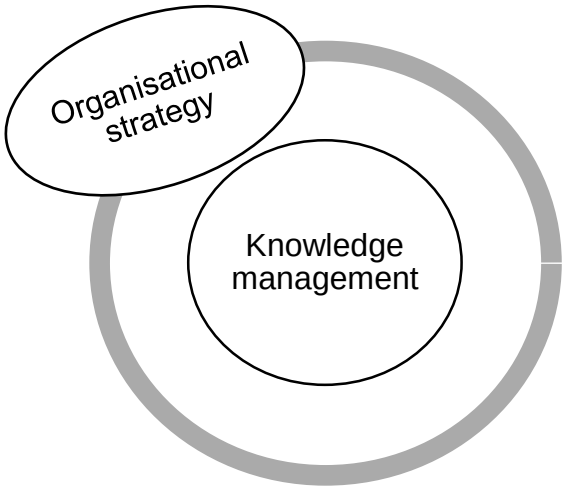


Figure 2-10 Relationship of knowledge management and organisational strategy (the author)

Their defined characteristics for strategic thinking clarify its knowledge intensive and collectivistic nature. Additionally, business strategies may not be borne of rigorous analysis, but the product of a mental state and hence it is difficult to measure.

### 2.6.2. **Knowledge management and organisational performance**

Organisational performance is the result of work, such as the growth of intellectual capital, accomplished through business objectives in order to produce value for the organisation (Lee and Choi, 2003) as cited by Armstrong-Flemming (2015). Deriving

from the KM definitions of O'Dell and Jackson (1998) and Wiig (1997), Rechberg and Syed (2014) argued that consciousness towards knowledge usage results in organisational improvement. Awan and Saeed (2014) evaluated the relative significance of effectiveness, efficiency and a set of related behaviours in jobs from employees, as performance. The main division of OP is financial and non-financial performance. The present study is more concerned with non-financial performance considering the initial exploration of the concepts, which might pave the way for further research to exploit the found constructs. Non-financial performance is further divided into product innovation, customer intimacy and operational excellence (Treacy and Wiersema, 1995). The study is more focused on operational excellence, which leads to the other two divisions. Another consideration here is the 'process view' of knowledge management, which supports the formation of argument, and thus the theoretical model. Operations excellence is further divided into cost and time efficiency and satisfaction. The study will be more in terms of the following three dimensions: effectiveness, efficiency and efficacy (Alegre *et al*., 2013), who view performance in terms of value created from knowledge resources. On the other hand, knowledge management could identify performance gaps (DeTienne and Jackson, 2001). Another dimension of this is that knowledge gaps leave the distance for goal attainment (Hassan *et al*., 2016).

Understanding the impact of knowledge management enablers on organisational performance is a challenge, and their interaction creates value Schiuma and Carlucci (2007). Schiuma and Carlucci formulated a metric of direct dependencies, listing KM enablers against performance objectives. One concern with this matrix is the involvement of managerial judgement to gauge whether the objective is achieved or not in a binomial form. They also formulated a visual framework using nodes and

arrows to present the cause and effect relationship of KM enablers with performance objectives. They additionally indicated that the disclosure of KM enablers determines the importance of the individual enablers. This further results in organisational performance, as a knowledge-profit link is not automatic and requires organisational effort (Kalling, 2003).

Agostino *et al*. (2012) established that the combination and integration of human, structural and relational capital would result in economic performance and intangible benefit. They described how the production process of R&D is the transformation of input to output. Performance measures for production processes could be input (resources), output (result of transformation for example, publication) and outcome (long-term impact). The performance dimension can be considered effectiveness (quantitative and qualitative), efficiency (ratio) and impact (long term effect on external context). Additionally, the codification of knowledge embedded in research bodies' results in publications, which further supported in that quantity of the output appeals to the administrative team and executive committee as it supports external accountability. While quality of output is appreciated more by the research personnel for whom impact factor and citation index can be used, keeping in mind that comparison of research units cannot be made as their average values varies among different research areas. Nevertheless, knowledge management is vital for R&D organisations (Hu *et al*., 2014).

Financial, business and organisational effectiveness are the three guidelines delineated for performance measure by Yea-Wen *et al*. (2015) citing (Venkatraman and Ramanujan, 1986). Yea-Wen *et al*. (2015) further argued that financial performance is dealt extensively in the literature. Organisational effectiveness is considered more relevant to the study for widespread use in strategic management.

The author's definition of OP is, essentially, achieving aims and objectives, effectively and efficiently with appropriate spending, moving through appropriate operations. Su *et al*. (2016) used subjective measures for OP, considering its relevance to organisational objectives, as does the present study. Morley (2014), in support of funders, suggested social enterprises such as think tanks use the performance measurement metric to enhance their transparency, but cautioned that social value may not be captured through commercial performance measurement tools. Furthermore, performance measurement tools could be costly for small organisations, and there remains an uncertainty about the relevance of their outcome.

Multiple dimensions of performance were also touched on in the literature of the KM-OP relationship, which primarily includes financial outcomes, organisational outcome and efficiency. Among financial outcomes, ROA (return on assets) and ROE (return on equity) are mostly used, whereas, organisational outcome range from innovation to creativity. How well an organisation is achieving its objectives is named as OP, which is usually assessed by effectiveness and efficiency (Sinha, 2013).

It has been more than decade since the KM-OP relationship was under discussion, which was previously considered as inherent. A focus on this relationship has brought forth many dimensions, but still the wider community consider it an assumption. The rhetoric nature of knowledge and KM extends into the KM-OP. Aspects of KM to work out their relationship with performance include KM processes, practices, activities, strategies, styles, enablers, knowledge assets, and so on. Awan and Saeed (2014) found that Pakistani universities have a significant impact of human, structural and relational capital on research performance.

The KM-OP debate in the field of KM is one of the most important debates and shares almost half of the literature in one way or another. The following graph from Summon reflects the trend of KM-OP significance over the last decades.

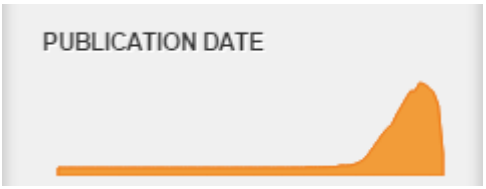


Figure 2-11 Trend of KM-OP (Summon, 2015)

The highest number of publications were in 2010, numbering 5939, while there were 5836 publications in 2011, 5586 (2012), 5244 (2013) and 4375 (2014) decreased gradually.

A similar search at a later date (24 Aug 2017) returned 733 publications for 2010, 892 publications for 2011, 867 publications for 2012, 689 publications for 2013, 774 publications for 2014, 697 publications for 2015, 751 publications for 2016 and 314 by Aug 2017. Calculations have been made for each year from 1st January to 31 December. Total number of publications with the limited search strings till Aug 2017 is 10,138. Although the graph feature of summon is no longer available, a graph could be plotted based on above figures.

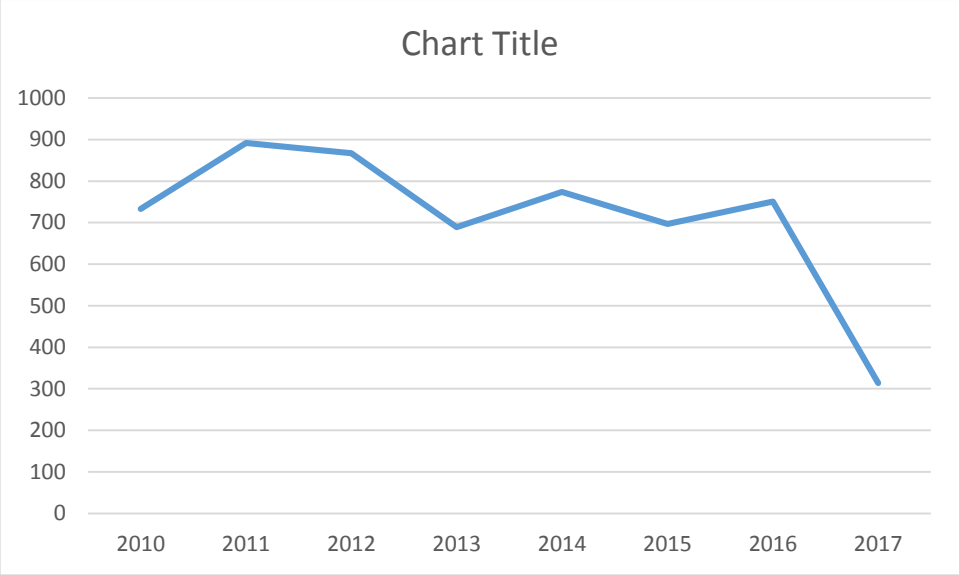


Figure 2-12 Trends of KM-OP (Summon, 2017)

To begin, the first question was defining the search string. This was defined on the basis of pre-acquaintance with the field, bearing in mind the aim of the research. This was as follows:

"knowledge management" and "organisational performance"

The second question was where to look and which search engines would be suitable for this search. To get a cursory look of the search results, the query was applied on Google Scholar, which provided 32,800 results dated May 5, 2015. Whilst exploring up to the 4th page (10 results per page), it was noticed that the key phrases were no longer in the article titles, and the availability of articles also lacked. The search was further refined through restricting the presence of the search string in the title only. This resulted in 268 results. At a later date (Aug 26, 2017) 1,830,000 results dated reflected high growth, .

Science Direct, an advanced search engine, provided 88,606 (2015) and 89,996 (August 26, 2017) results with a search query of knowledge management and organisational performance. This was further refined by restricting it to the phrase

“knowledge management” and “organisational performance”, rather than the individual words. This time the results were 1,905. This result is further refined by restricting the search to only titles, abstract and keywords. This time the results were 315 (2015) and 411 (August 26, 2017). Further, restricting the results to the areas of ‘Business, management and Accounting’ and ‘Social Sciences’ and document type as ‘Journal article’, resulted in 78 (2015) and 288 (August 26, 2017) publications.

Elsevier is a world-leading provider of scientific, technical and medical information products and services. It only provided four results - two books and two journals in 2015. It also directed the user to search on Science Direct and Scopus. At a later date (August 26, 2017) it provided 273 results. Scopus resulted in 508 documents (2015) using the search string by looking into their title, abstract, and key words. The search was further limited by selecting English only results, which resulted in 489 results. The results are further refined by selecting document type as article only, excluding book chapters, reviews, surveys, conference papers, conference reviews, and article in press. This resulted in 263 hits, further short listed to 191 by limiting to the subject area of business, management and accounting, and social sciences. Later, Scopus and Elsevier are providing one stronger search tool to the academic world.

ProQuest provided 70 (2015) and 3,052 (August 2017) results by searching the abstract with the defined search string. The result is further refined to 48 (2015) by limiting it to journal article, peer-reviewed articles and journal. ProQuest provided the following graph of the publications from 1997 to 2014 for the above search results.

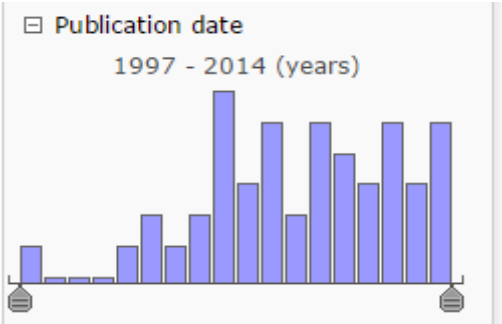


Figure 2-13 Publication trend for the search string [KM, OP] (ProQuest, 2015)

On a later date (8 Oct 2016) the search phrase string ended in 80 results by looking in abstracts, limiting the results to Journal articles, full text, peer-reviewed and the English language. The graph is presented below in figure 2.14.

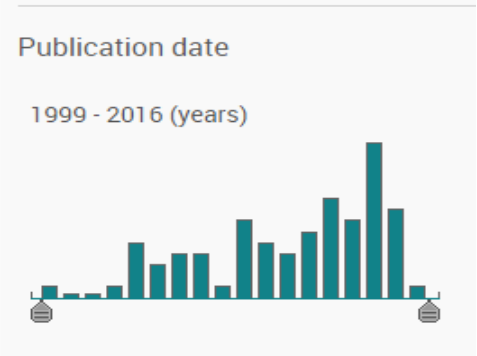


Figure 2-14 Publication trend for the search string [KM, OP] (ProQuest, 2016)

On a further later date (26 August 2017) the search string with the same above criteria provided 1,613 publications. And the graph formed is as follows.

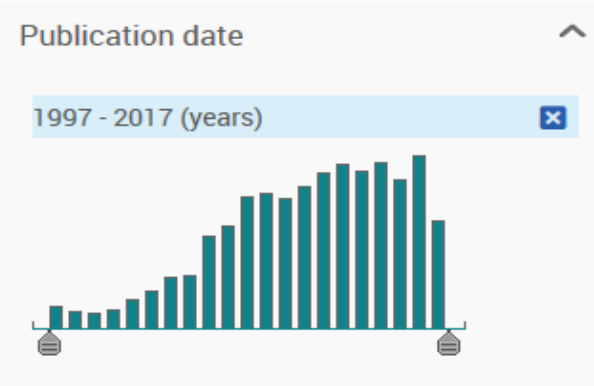


Figure 2-15 Publication trend for the search string [KM, OP] (ProQuest, 2017)

After filtering out, the IT and engineering results, the search outcome revealed articles that are of a technological dimension, though had fallen on search string criteria. For example, Artail (2006) discussed the impact of KM measures on corporate productivity, but through specialised groupware systems.

The specific dimension of KM-OP literature is spread across several fields. Summon, with a defined search string provided research articles distributed over 47 (2015) and 58 (2017) disciplines. Among these disciplines 'business' is at the top with 878 articles (dated June 2, 2015) and 181,883 articles in August 2017. Other top disciplines that also had a major share of articles are engineering (420), computer science (216), economics (208) and library and information science (110) for the year 2015. Whereas, other top disciplines appeared in August 2017 are economics with 75,805 articles, engineering with 50,199 articles, education with 40,878 articles and history and archaeology with 36,763 articles.

Payal and Debnath's (2015) systematic research review of KM-OP had used wider search words including business competitiveness and impact. They found heterogeneity of research methods and theoretical framework. They analysed the literature considering the context of the study and found only one study in respect to Pakistan. According to their review, the subjective measures of OP, is a common trend, whilst interview analysis had been rarely used among KM-OP studies. They found KM-OP literature had occasionally considered the use of specialised software and a few had used SPSS, LISREL, EQS, SAS, AMOS, and PLS Graph. The software's are generally used for quantitative analysis. Furthermore, they found that research lacks in presenting a comprehensive KM-OP model.

There are many studies that emphasise the need to explore the KM-OP link. For example, Jayasingam, Ansari, Ramayah and Jantan (2013) and Yang (2010) believed

the link is yet to be exposed. According to Holsapple and Wu (2011) finding the KM-OP relationship is significant to the value of the KM initiative and also its impact on performance. Carmeli and Ashler (2004) emphasised how literature is primarily composed of case studies and is in need of large sample studies of strategic elements and their combinational impact on OP. Zack *et al*. (2009) evaluated how KM-OP lacks the large scale empirical evidence.

The growing KM literature partially pursues the knowledge-performance link (Kalling, 2003). Chang and Ahn (2005) agree with this, along with providing examples of the relationship as a learning curve or experience curve. Weighing the importance of organisational culture with respect to KM Al Saifi (2015) mentioned the ignorance of the impact on OP. The KM-OP link is complex and understanding a deconstructed view of it provides better know-how (Mills and Smith, 2011). Lu (2017) argues that knowledge management enhances organisational performance.

Vekstein (1998) highlighted the need for systematic research on the impact of the dynamics of knowledge accumulation on performance. He further argued that organisational cultural differences have an impact on organisational collective learning, which in turn has an impact on organisational collective performance. This can be illustrated as follows:

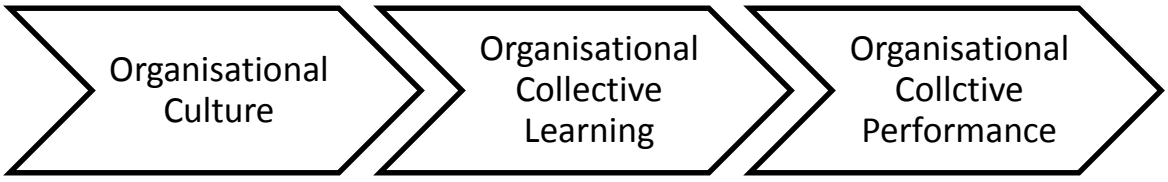


Figure 2-16 Impact of organisational culture on OP (Vekstein, 1998)

Vekstein (1998) found that a strong individualistic culture might prove a hindrance to collective learning. His main finding is knowledge accumulation in stock and the ability to discard obsolete knowledge, and provide a new strategic dimension to firm.

Mills and Smith's (2011) findings can be summarised in the table below:

Table 2-5 Summary of Mills and Smith's (2011) findings

| | | | | |
|---|---|---|---|---|
| KM | Knowledge process capability | Knowledge acquisition | Significant positive relationship | OP |
| | | Knowledge conversion | Important if considered independent of other variables | |
| | | Knowledge application | Source of value creation<br>Significant positive relationship<br>Most important dimensions | |
| | | Knowledge protection (copy rights, patents and technological passwords and protocols.) | Significant positive relationship | |
| | Knowledge infrastructure capability | Technology | No direct relationship | |
| | | Organisational culture | Linked through organisational learning, organisational memory and knowledge sharing | |
| | | Structure (hierarchy, rules and regulations and reporting relations) | Direct relationship<br>Significantly impacting OP | |

There are also some studies which have reflected on the mediating role of KM or KM capability or KM capacity. Zack *et al*. (2009; 393) found KM can inspire OP in several ways. "Knowledge infrastructure (information technology, organisational culture, and organisational structure) and knowledge processing capability (i.e. the ability to acquire, convert, apply and protect knowledge)" have a strong relationship with organisational effectiveness. Furthermore, one of the key aspects of KM-OP is respecting the knowledge and learning is of strategic importance.

Some studies have also introduced mediating variables between KM-OP, which are organisational size (Jayasingam *et al*., 2013), organisational culture and structure (Rasula *et al.*, 2012) and knowledge alignment (Reich, Gemino, and Sauer, 2013) etc. Knowledge process capabilities and creative organisational learning in turn mediates the relationship between KM infrastructure and OP, which demonstrates the relevance of KM infrastructure for OP (Lee, Kim and Kim, 2012). Lee and Choi (2003) found the impact of trust on knowledge creation and organisational creativity intermediates the link.

Not all components of KM directly impact OP, but they collectively result in KM capability, in-line to RBV (Mills and Smith, 2011) and basic qualitative performance measures might be useful for an organisation initiating with KM (Carrillo *et al*., 2003). Choi *et al*. (2008) found that a complementary set of KM strategies leads to maximum gain of performance, while individual strategies may have a minor impact. Yang (2010) concluded that the impact of KM strategies is on strategic performance.

Schulz and Jobe (2001) found a level of codification effects OP with two qualifications; (1) different types of knowledge have distinct impact (2) numerous codifications have distinct impact. Furthermore, it was found that, statistically, the codification of organisational knowledge has almost no effect on organisational subunit performance, whilst the focused codification approach positively affects organisational subunits performance. Additionally, the focus of codification leads to high performance, i.e. technical knowledge in numbers and codes, marketing knowledge in words/texts, and strategy knowledge in objects and people.

Furthermore, two other differentiations are based on different types of knowledge and different styles of KM, for which the literature traces their relationship with OP. The management of tacit and explicit knowledge has a different relationship with

performance and other dimensions. ‘Tacit knowledge has no direct impact on financial performance’ (Yin, 2013; 1350). However, the importance of tacit knowledge is salient based on the fact that codified knowledge is only usable with tacit knowledge (Landry *et al*., 2016). They argued that knowledge intensive service firms cannot only rely on internal knowledge and require external and complementary knowledge. According to Choi and Lee (2003), the relationship of KM styles with organisational performance is missing from the literature. They argued that an explicit and tacit focus of management derives from the KM method. Their findings suggest that a dynamic KM style (exploit and explore) results in high performance, and also requires funds to be invested in both IT and HR perspectives. Furthermore, a tacit orientation depends on interpersonal knowledge and is informal; the other dimension is formal and concerned with external knowledge. For an improved performance, a balance of two orientations needs to be discovered. Avenues of formal tacit knowledge sharing are roundtables, trainings sessions, meetings, one-on-one sessions and intranet etc. and informal tacit sharing are lunch breaks, tea points, water cooler etc., which are mostly underutilised in organisations (Mungai, 2014).

There are other studies which considered KM capabilities, KM orientation, KM enablers and KM factors to ascertain the impact on OP. A few also used some specific dimension of knowledge to discover the relationship with performance, for example, strategic knowledge, team knowledge, marketing knowledge, supplier focused KM etc. Lin and Tseng (2005) also complained that the literature, although growing, lacks explicitly explaining the KM-OP relationship. A lack of clarity about the impact of KM on OP is hindering the KM initiatives in organisations (Choi and Lee, 2003). Enhancing organisational capabilities through knowledge assets presents the reason for the

increased interest in the KM-OP link (Marr *et al*., 2004). Zack *et al*. (2009) found a positive relationship between KM processes and OP.

Although, there are many studies emphasising the need to explore the KM-OP relationship, Chong (2006) is of view that OP is determined by the benefits of KM implementation, which has been widely discussed in the literature. Also this view of KM in terms of strategy reflects the inherent relationship between the two. According to Rechberg and Syed (2014), organisational effectiveness could be enhanced by increasing employee participation in conceiving, designing and implementing KM programs. Additionally, there are studies that assume the link before the existence of any empirical evidence. Chang and Ahn (2005) argue that most literature is based on an implicit assumption of performance improvement by knowledge. They consider a black box view of knowledge, quantitatively contributing to performance. A clear gap in the research exists regarding the KM–OP, due to two considerations; one is the link is obvious and assumed and, secondly, the attractiveness of competitive advantage and innovation concerns.

A few other studies have used slightly different terminologies. Liu, Chen and Tsai (2005) found that a strong implementation of KM methods have a positive impact on new product development performance in high technology companies. Mohamed, Stankosky, and Murray (2004) have made use of KM principles along cross functional teams to enhance knowledge flow, and thus the OP. Gloet and Terziovski (2004) alleged that a mixed KM approach, making use of both HRM and IT has an impact on innovation performance. Jayasingam *et al.* (2013) concluded a lack of significant relationship between knowledge acquisition (Hiring) and performance, and knowledge dissemination and process improvement.

The two goals of KM are value creation and achieving a shared understanding (Reich *et al*., 2013). Choi and Lee (2003) argued that KM in an organisation is of primary importance, with a basic motive of improving performance. Managing knowledge/information is a necessity for today's organisations and doing it well results in operational improvement (Chourides *et al*., 2003). Goel, Sharma and Rastogi (2010) identified KM as vital for OP. Zack *et al*. (2009) formulated a table summarising the studies on the KM-OP relationship, listing 29 articles mentioning the nature of the study as empirical or non-empirical, their study methods, and their key findings. They found no significant relationship between KM practices and financial performance, but OP mediates the relationship.

A positive relationship between KM practices and OP is reflected by (1) an improvement in organisational outcomes in terms of innovation, product and employee improvement, and (2) operational and organisational performance, due to KM practices and processes (Rasula *et al.*, 2012). Considering this relationship as positive Choi *et al.*, (2008) raised the need to research the impact of different KM strategies on OP.

According to Yang (2010), a few studies present it as a negative relationship, while the majority consider it a positive relationship, although conversely this might be due to the presence of some mediatory effect. Zack *et al*. (2009) found no significant relationship between KM practices and financial performance, but with the mediation of OP. Jayasingam et.al, (2013) found lack of significant relationship between knowledge acquisition (Hiring) and performance, and knowledge dissemination and process improvement. Nnabuife *et al*. (2015) found a positive relationship between knowledge identification and the acquisition of OP.

Although objective measures are norms, Su *et al*. (2016) used subjective measures of firm performance, concluding that there is not always a linear or nonlinear relationship between knowledge creation capability and OP. They suggested that future studies should clarify the industrial and institutional factors within which knowledge creation capability could improve OP. They also found the positive impact of technological turbulence, competitive intensity and governmental support, and the negative impact of dysfunctional competition on the knowledge creation capability and OP.

A performance driven implementation of knowledge management could provide a better outcome for conscious efforts. According to Carrillo *et al*. (2003), many KM implementations are ignorant of integrating performance impacts. They argued that most construction organisations had or were in the process of adopting KM, but still were not linking KM with performance. They further argued that along transforming organisational knowledge, KM should provide effectiveness and efficiency measures. KM's relationship with performance is inherent and is raised by contemporary authors while defining KM. For example, Karadsheh *et al*. (2009; 70) defined KM as a "structured process with activities to capture, discover, create, filter, evaluate, store share and apply knowledge from individuals to advance business processes and meet organisation's objectives and goals." Sawyer (2015) found enhanced knowledge transfer with structured storytelling. Likewise, others have presented it with the results of organisational learning, innovation, efficiency, improvements, competitive advantage etc. In comparison to Karadsheh's *et al*. (2009) definition, the present study views KM as a natural process which is independent of the explicit implementation. Bakir *et al*., (2015) considers KM a natural phenomenon. Social structures are relatively less sustained than natural structures (Tsnag and Kwan, 1999), such as knowledge management.

Reviewing the literature also raises a question to delineate OP and performance of the KM project, which is often considered overlapping but distinct in actuality (Jayasingam *et al*., 2013). The efforts to measure KM performance have resulted in listing critical success factors of KM. Two sets of performances are highly related and overlap most of the time, but the need is to keep the distinction, since KM program performance remains the subset of overall OP. Jayasingam *et al*. (2013) enumerated popular KM metrics, including skandia navigator, a KM balanced scorecard, economic value added, and universal intellectual capital report, to analyse KM programs. The efforts to explore KM-OP began in the early 1990s, which resulted in a list of KM success factors (Chong, 2006). The current literature review does not negate the importance of KM performance and the link with the OP, but for the sake of clarity and scope the distinction has been made.

Knowledge management efforts are required and are made to enhance organisational performance, while considering it at the strategic level. Mavodza and Ngulube (2012; 2) provide a definition of KM as follows: “KM is a process that enables an organisation to improve the performance by enabling learning and innovation whilst problem solving, acknowledging and resolving gaps in operations, and recognising knowledge (comprising people and information) as an organisational asset, which has to be managed through enabling policies and institutional tools”. This consideration would actually be the first level in embracing KM after which thoughts can move towards the selection of styles, processes and tools on the operational level.

The knowledge management literature considers OP in different forms. Rasula *et al*. (2012) have taken the following elements: financial, customer, internal processes, and innovation and learning perspectives along with an additional supplier perspective. Moreover, different stakeholder perspectives, measure OP differently, using several

tools, while similar measurement dimensions were coined by Jayasingam *et al*. (2013) namely, customer, human capital, process and technology, and financial perspective. Traditionally, physical resources, organisational structure, geographic scope and size define OP, but increased uncertainty and volatility demands for dynamic learning capability and market knowledge (Chang and Ahn, 2005). Mills and Smith (2011) discussed how OP relies on both tangible and intangible resources.

According to Chang and Ahn (2005), two different (but complementary) views of performance-orientation are marketing orientation and human resource orientation. They have divided business performance into market performance with external orientation and OP with internal orientation.

Along above another dimension of performance is quality, which could be of product or services or can be seen as whole. Takei (2010) views a lack of impact on quality improvements in the relevance of business strategy, but also implies that quality is only one dimension of performance. Chourides *et al*. (2003) also revealed that the KM relationship with quality is under researched and there exists a positive relationship with total quality management.

In their study of KM's impact on project performance, Reich *et al*. (2013) identified performance as primarily composed of meeting the pre-set budget, planned schedule and agreed scope, along a new dimension of 'value', which relates to the benefit to customer, and cannot be confined into financial outcome. Whilst not creating knowledge homogeneity among the team, performance in projects is a multidimensional construct where project management performance is budget schedule measure, and project performance counts, both realised and future benefits. Although, the distinction between several KM practices is hard to delineate, there is significant previous research specifying practices and their impact on performance.

Jones *et al*. (2007) found a strong link between knowledge sharing and retention with performance. Al Saifi (2015) found a positive relationship between knowledge sharing, creation and application on OP, whereas, Zack *et al*. (2009) argued that knowledge creation is a by-product of learning and OP demands for both knowledge exploitation and exploration. They identified that the performance metric is worthy for the organisational ability to compete strategically, hence making the KM-OP relationship visible, considering the strategic nature of knowledge resources. The study considers how financial performance is not achievable unless the OP is achieved. Accordingly, customer intimacy (satisfaction and retention), product leadership (innovation and quality) and operational excellence (operating costs) were taken as constructs of OP, along with another construct of overall OP.

Anantatmula's (2007) summary of KM outcomes provides a comprehensive list that can serve as the performance indicators in relation to KM. Her study is more focused on explicit KM programs. Her KM criteria for different kinds of organisations could also be useful for the present study, as for third sector organisations part of the criteria may be of more use and the rest less applicable.

The current study considers that financial performance is not achievable unless the OP is achieved and subjective measures for performance are required first to formulate some objective measures. One such perspective could be based on the insight of the knowledge worker, who has the actual say in knowledge work and their motivation and satisfaction matters (Alvesson, 2004). Jääskeläinen and Laihonen (2013) describe two performance dimensions as the knowledge workers perspective and the stakeholder's perspective. They argued that human resource management provides several generic tools and practices as employee performance measures, but these are still not considered as part of the organisational performance measures.

They reasoned that subjective measurement tools are simple to measure intangible knowledge worker characteristics, but issues of reliability, comparability and credibility remains. They also argued for balanced performance frameworks, which give an answer for ‘what to measure’ but not for ‘how to measure’.

The KM-OP relationship gained further consideration moving up to the 21st century and the significance of KM in respect of organisational success is widely acknowledged (Chong (2006), Al Saifi (2015) etc.). Annual reports of organisations have now been added by IC reports to reflect how strategic knowledge resources are managed (Bukh and Johanson, 2003). KM is for continuous business improvement as growth of KM has been observed due to the positive impact on competitive edge and organisational performance (Payal and Debnath, 2015). The literature reflects the existence of the KM-OP link, yet must discover which KA’s and capabilities impact OP (Mills and Smith, 2011). Natarajan and Bagwan (2016) classed knowledge management as key to the success of any organisation and further argue that human capital is the major ingredient for organisational performance, when compared to the physical capital.

Chang and Ahn (2005) demonstrated how performance orientation acquired the shape of a guiding philosophy to influence organisational KM activities.

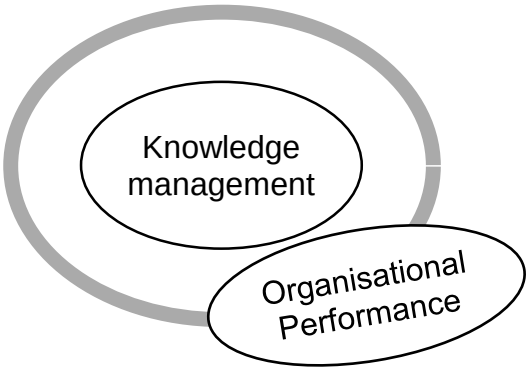


Figure 2-17 Relationship of knowledge management and organisational performance

## 2.7. **Knowledge management, organisational performance and organisational strategy**

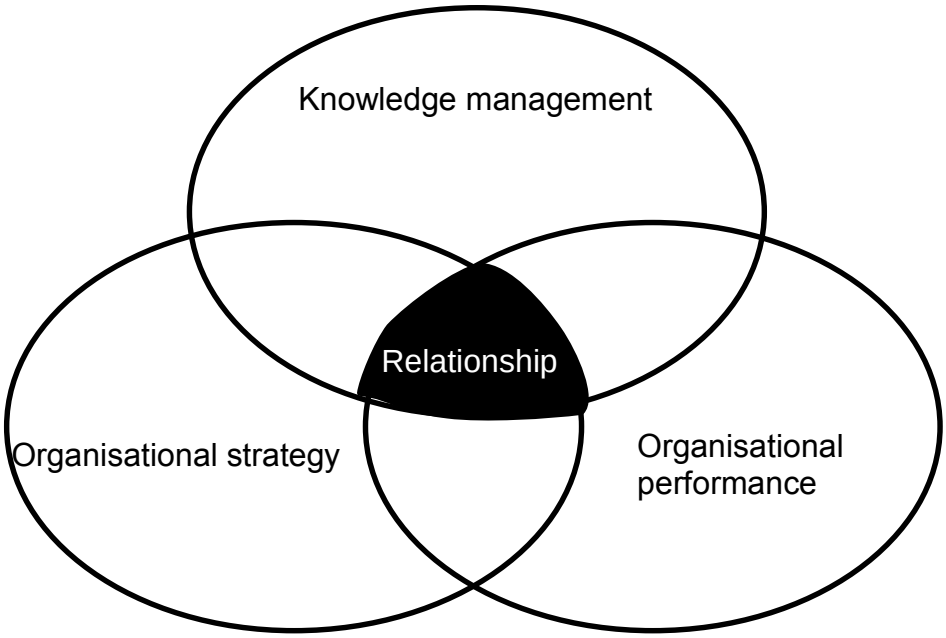


Figure 2-18 Theoretical gap (the author)

The above figure 2.15 presents the theoretical gap in the relevant literature of the three strategic concepts of business and management science. Hardly any study so far has considered the three constructs explicitly in observing their mutual relationship where constant change is in action. Whilst the debate of KM-OP relationship is gaining

significance in the field of KM, consideration for business strategy is being overlooked. Considering knowledge management as the bridge, between initial and final nodes of the business cycle, i.e., organisational strategy and organisational performance and keeping them aligned in changing times for continuous improvement should be considered the agenda for the future. The rapidly changing environment is demanding a quick intelligent response from organisations and the managerial focus is shifting from forecasting and planning to challenges arising due to emerging changes, and quickly gaining and utilise knowledge, at a fast pace throughout the organisation (Bartlett and Ghoshal, 1998). Kalkan (2017) argues that effective knowledge management could serve as a tool against uncertainty, complexity, ambiguity and volatility. Knowledge management must go hand in hand with organisational strategy, with the aim of improving organisational performance (Schiuma and Carlucci, 2007).

Knowledge management is focused on the critical resource of 'knowledge', inherently linking strategy with performance and the hidden changes from past to the future. It matches the definition of KM by Natarajan and Bagwan (2016;p206) who says that "KM is a practice of selectively applying knowledge from previous experiences of decision-making to current and future decision-making activities with the express purpose of improving the organisations effectiveness". Additionally, a quick learner will compete in future (Zack *et al*., 2009), which means the organisations need to quickly adjust to change by updating their strategy and align it to their performance in order to survive.

KM outcomes are assessed as OP, KM success and strategy implementation by Mills and Smith (2011). This serves as the two pillars for current research- the first KM supports strategy implementation and development and then results in OP. The two

pillars are inherently linked as business strategy creates the capability to analyse performance (Alegre *et al*., 2013).

Drawing on the above links, the relationship between the three constructs is evident, but there is a need for clarity. For example, Smits and De Moor (2004) expressed that diverse KM literature is mostly discussed along terms of business strategy and business performance, but still needs a specific theory about the role of measurement and performance indicators. Knowledge management is a diverse and critical organisational strategy, but the relationship with OP is not yet discovered (Yang, 2010).

The KM process is viewed as strategic organisational resources embedded in policy, strategy and implementation processes by Karadsheh *et al*. (2009). Using Parikh (2001) he argued that all organisational activities are to be viewed as a knowledge producing process so the organisation can learn. Albers and Brewer (2003) and Alryalat and ALHawari (2008) also analysed how KM processes improve operational efficiency. Based on the taxonomy of definitions of KM processes drawn from the literature, he has proposed a conceptual framework for KM processes to guide successful implementation of KM. Similarly, a model of knowledge environment, strategic space and firm performance was presented by Jones *et al*. (2007).

Performance measures are analysed as key issues in relation to knowledge management by Carrillo *et al*. (2003). Furthermore, a structured approach to KM adopts a performance measurement model. Their IMPaKT Framework and Cause and effect map is presented in figure 2.16.

The IMPaKT framework draws a clear link between strategy and performance in a cyclical way, with its main concern on organisational knowledge. The three main enablers of knowledge management considered here are process, people and

product. The identification of knowledge assets is assumed in the model, along with taking the KM initiative. An approach towards performance is more structured and restricted with the three element processes, people and product. Furthermore, the model takes over the performance more in the perspective of KM performance, rather than organisational performance.

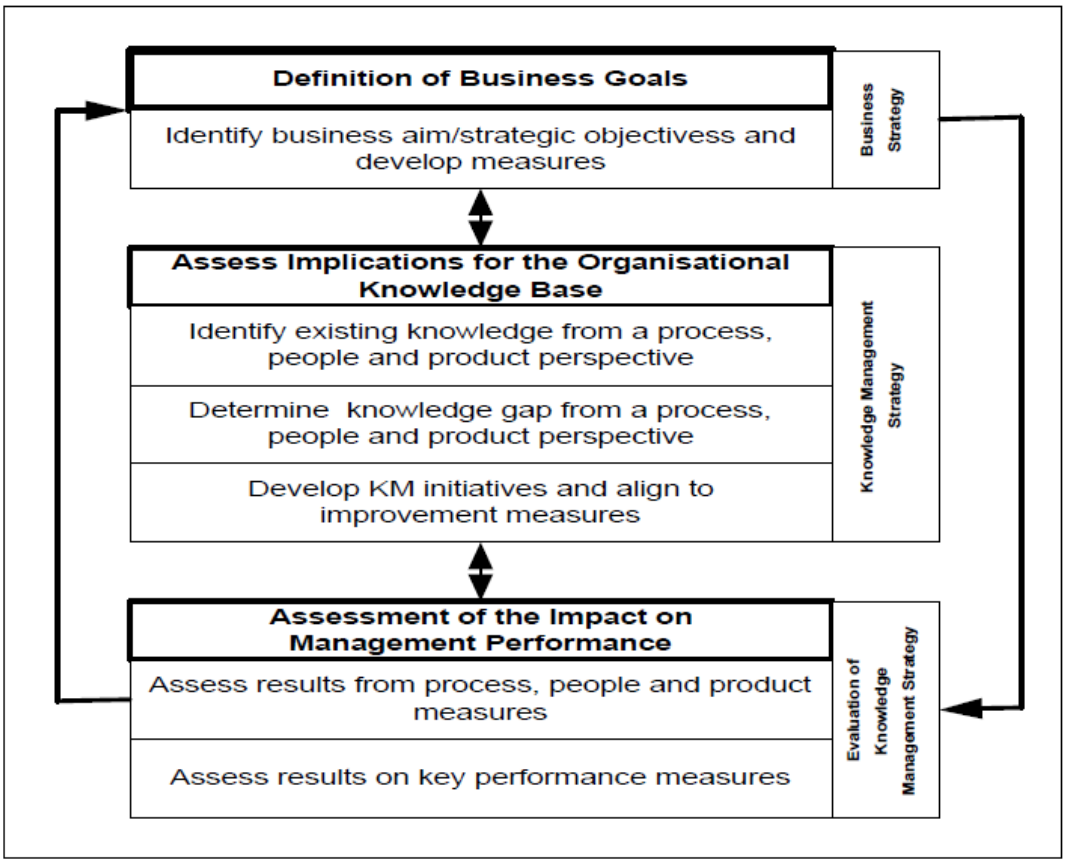


Figure 2-19 IMPaKT framework (Carrillo *et al*., 2003)

The cause and effect map (figure 2.17) shows how organisations formulate KM objectives in a strategic context. As a starting point for evaluation, the cause and effect map was considered beneficial. It has less flexibility for knowledge intensive businesses (c.f. Alvesson (1993). As the tangible nature of products and inputs, businesses and profit orientation and direct product users are considered as the strategic initiations. The map is less usable for organisations where the management

is more of a subjective nature. A crucial assumption at the KM initiative stage in the map is the totality of the existing knowledge with which an effort to avoid all possible errors, have a factor of stagnation. Furthermore, the 'best practice' (a relative term) is used to objectify the cause and effect map. As discussed in the IMPaKT framework, the above cause-and-effect map also, ignores knowledge products, service, workers and stakeholders, in the performance measures.

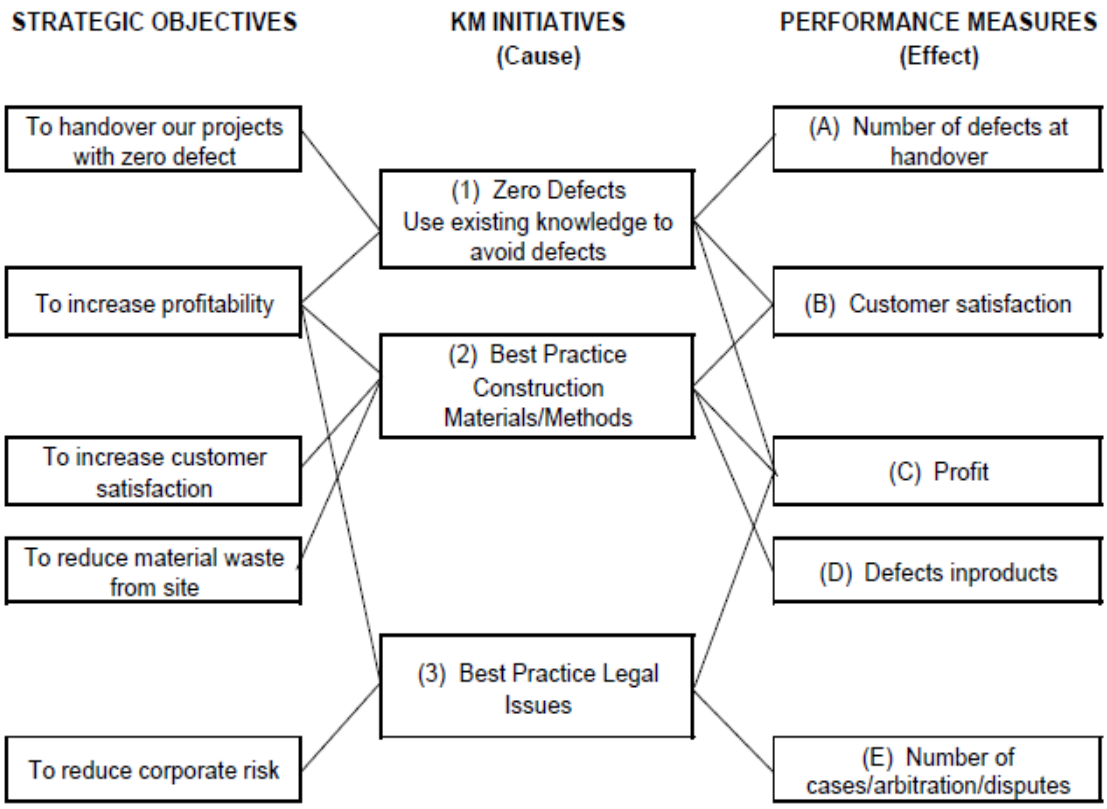


Figure 2-20 Cause-and-effect map (Carrillo *et al*., 2003)

In an analysis of knowledge needs and management gaps appearing in the way of KM system implementation, Lin and Tseng (2005) developed a holistic framework. They identified five KM gaps that trace the link from OS to OP. Dandira (2012) also raised a similar concern which could conclude in a knowledge gap if human capital as whole is not involved in the strategy processing.

Armstrong-Flemming (2015), in her doctoral thesis, explored KM practices and OP within the public sector organisations, considering KMPs as a strategic resource. Her study is focused on finding the best practice KM model to be used by full time public sector employees to improve OP. The current literature of performance measurement systems in R&D is focused on the private sector, which is different from the public sector, which has a struggle for finance (Agostino *et al.,* 2012).

Lee and Choi (2003) argued the need for a holistic view of KM, and used systems thinking theory for this purpose. A strategic consideration determined business needs to leverage knowledge assets to enhance organisational efficiency, effectiveness and cater towards change (Natarajan and Bagwan, 2016). A holistic view of KM of improved organisational performance originates from the inside to take external challenges, dealing with it at the strategic level (Kalseth and Cummings, 2001). Furthermore, KM works as a business strategy for continuous improvement. The only appropriate strategy could achieve desired performance closely embedding knowledge management (Yea-Wen *et al*., 2015).

The above literature raises the need to explore the following research proposition

> What is the relationship of knowledge management, organisational strategy and organisational performance?

## 2.8. **Theoretical framework**

This section discusses the conceptual presentation of the relationship of knowledge management, organisational strategy and organisational performance based on the existing literature. KM is the natural and independent resource which keeps the strategy and performance aligned and in a continuous cycle. KM on the one hand keeps the strategy updated, and on the other hand aligns the performance goals with

it. OP and OS keep adjusting in relation to each other in a continuous manner, whereas KM keeps them tied in an orbit. KM processes are enabled through an outer layer of KM enablers, with three main divisions of HC, SC and RC. These enablers are also the main ingredients of an organisation, around which strategy and performance measures were built. It is the layer of enablers where the tangible elements of an organisation reside, and may not necessarily cover the KM as a whole, considering its subjective nature.

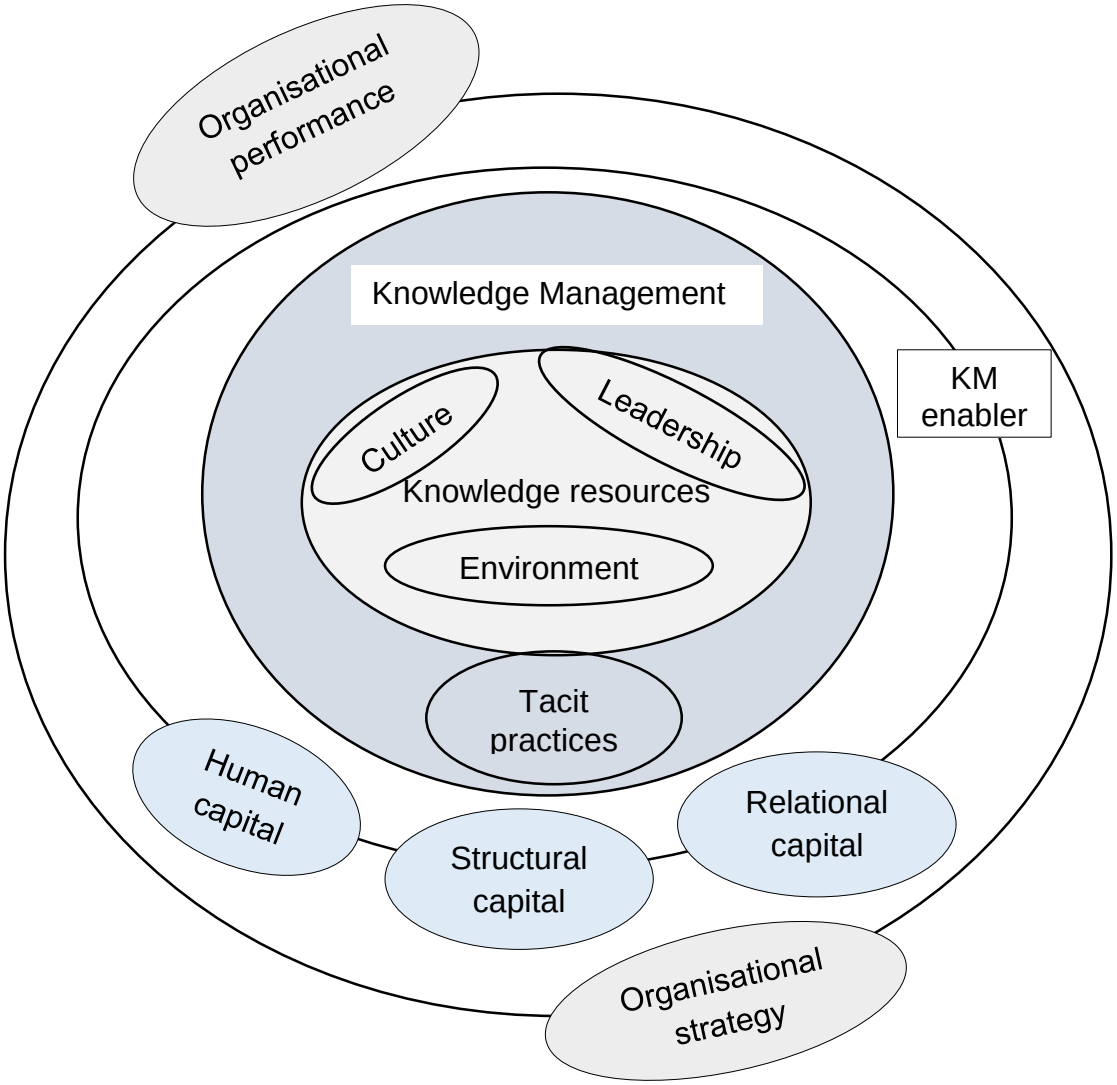


Figure 2-21 Theoretical framework

The oval shapes in the model are a representation of distinct entities that show individuality within it. Another benefit drawn from the oval shapes is to present their

self-spin around themselves, similar to the elements of solar system. This means each component of the model develops over time may also be subject to external changes, and also align with other components of the model. The tangible elements will become depreciated over time whilst, intangible elements are probably expanding. An explication of the relationships and their presentation mostly depends on the need and movement towards a structured approach. It is the process of KM that defines OS and causes the organisations to achieve their objectives, enhancing performance and developing performance measures. A strategy might be classed as the initial point of an organisation and performance could be the final point, however, the two remain in an orbit around knowledge management, enabled by human capital, structural capital and relational capital.

## 2.9. **Limitations of the literature review**

Similar to any other literature review the common limitations involved in this study are that one is a singular researcher, there is a specified time frame, a limited time duration, and there is limited literature accessibility. A single researcher brings in his/her own understandings based on specified learning's and experience. With specified time frames that researchers understanding, mood and mental strength varies. Time duration always pose a challenge to accomplish the target and the due pressure could impact the absorption of ideas and understandings. Thanks to libraries and their online literature accessibility, along with the university's scholarly search engine services, which provided extensive access to the relevant literature. However, it is not possible to ignore that the preference to access the literature remained for English literature, mainly due to the requirement of this thesis to be presented in the English language. Additionally, for other languages like Urdu, there could be a

limitation of physical access considering the author's physical presence in the English speaking world. The author's personal choices for picking, choosing and continuing to read a specific area of study on a daily basis remained cautious, hence limiting the free access to the literature and learning. It could also be claimed that only an insignificant and specific portion of the relevant literature was investigated amongst the myriad of studies available.

There exist some limitations in regards to the field of knowledge and knowledge management. It is not easy to choose from the multiple available definitions of knowledge (Heisig, 2009), and once one has been selected, it remains limited in terms of dimensions covered. Only specific aspects with regards to knowledge were incorporated in the thesis, and there has been no further debate on knowledge theories. Given that the field of knowledge management is still demanding appropriate recognition (DeTienne and Jackson, 2001), the available literature is under recognised (Ma and Yu, 2010), leaving the dual dilemma of the input and output for the current study. The broad scope of knowledge management over multiple disciplines poses the limitation of getting hold of only specified dimensions, which could be a higher level challenge for an early career researcher. The success of any knowledge management study could be at stake Horwitch and Armacost (2002), due to the underlying internal complexity and demand for the specification of the dimension under consideration, consider the wholesome concept of knowledge management as a bigger challenge. Knowledge management and organisational learning are different sides of the same coin, and acquiring new knowledge is classed as organisational learning (DeTienne and Jackson, 2001). However, the literature also portrays a distinction between the

two. The current study has prioritised knowledge management literature and glosses over the organisational learning literature.

## 2.10. **Chapter summary**

KM is a natural process and the energy centre for organisational system. The knowledge management centre is covered by a layer of enabler's, namely, human capital, structural capital and relational capital. OS and OP revolve around the knowledge management tide with the gravity in an effort to capture the continuous change. In today's competitive environment and demand for innovation, an organisation cannot survive with traditional management (Sinha, 2013). For the 21st Century, a consideration of KM is a performance indicator (Chong, 2006). According to Jayasingam *et al*. (2013) embracing KM is necessary for organisational success. A better understanding of knowledge could be gained by understanding the impact on performance (Chang and Ahn, 2005). Inclining business strategy and KM strategy is a must, for which KBV provides starting point. Zack *et al*. (2009) are justified in saying that organisations need to develop a KM mind set to gain the benefits of KM, without which KM initiatives might fail. The first necessary step is creating KM awareness, upon which further steps of Schwartz's (2006) mapping of Aristotelian knowledge virtues could be considered.

Strategic resource 'knowledge' created throughout the organisation imparts the ability to respond to change, creating a demand for KM (Choi *et al*., 2008). Mills and Smith (2011) assessed KM outcomes as OP, KM success and strategy implementation. Kalseth and Cummings (2001) argued that KM works as OS as well as developmental strategy. One of the Wiig's (1997) KM strategies is 'Knowledge strategy as OS', which focuses on knowledge process at each step of the business. According to Steyn and

Kahn (2008) the alignment of KM strategy with OS will define the positive effects of KM implementation. Carrillo *et al.* (2003) recognises KM alignment to OS, and the same is thought by Schiuma and Carlucci (2007), who include a concern for OP objectives. Moreover, Armstrong-Flemming (2015; 11) wrote that "strategic KM must be embedded in OS that in turn becomes integrated with OP". It must align to strategy and performance in order to achieve knowledge management aims (Natarajan and Bagwan, 2016).

The previous research has raised the need to explain the KM-OP relationship for example, Holsapple and Wu (2011) etc. Whereas, Zack, *et al*. (2009) specified it for large scale empirical studies. Chang and Ahn (2005) argued that most of the literature is based on the implicit assumption of performance improvement through knowledge. Furthermore, most of the KM literature is focused on an explicit KM program and is silent on the unexposed context. Secondly, the aspect of informality of KM is rarely captured, and requires empirical findings. Knowledge management is similar to an atom, but unfortunately the particles have been discussed at length; yet, the description of the atom is missing. The limitations of this literature review could be the inclusion of a limited number of studies which have possibly formed the limited understanding of the researcher. Another complication is the rhetorical nature of the field, which makes it difficult to explicate the whole idea.

# Chapter 3 : Research Methodology and Methods

## 3.1. Introduction

The present study follows critical realism at a philosophical level, utilising a qualitative approach at the methodological level, developed from case studies of 8 Pakistani think tanks. Critical realism has the capability to handle complex organisational phenomenon (Wynn and Williams, 2012) and perceives reality as distinct from the researcher's perception. The study uses a qualitative understanding of KM within knowledge intensive organisations who do not have an explicit KM program. An exploration of tacit phenomena, i.e. low level KM awareness, informal practices and less cognizant strategies, paved the way for a qualitative study.

Small policy research organisations are considered the unit of analysis for this study. Participant organisations have been carefully selected within their specified work domain and geographic area considering the resource limitations of the study. The data collection mainly comprised of semi-structured, semi-formal, multilingual interviews and discussions, triangulated with observations and document analysis. 114 face to face Interviews, 70 discussions, 4 telephone interviews, 5 conferences/seminars and 2 organisational meetings resulted from the field work during March-April 2014. Access to the participant organisations was successful with careful and timely planning. 110 audio recorded interactions of about 84 hours are transcribed verbatim. The online transcription tool 'transcibe.wreally.com' provided a single window audio and text editor mode. All the text is read and re-read to develop an understanding of the derived themes. A manual thematic analysis confirmed the theoretical understanding built against specified research objectives, along the highlighted themes from the transcribed text.

Multiple cases, data sources, informants, and carefully coined data collection protocol, forms the quality criteria for the study. Multiple case studies bring forth robustness, analytical generalisation and external validation (Vohra, 2014) by providing detailed insight. Special ethical attention has been paid towards informed consent, anonymity and privacy. At a management theory level, the resource based view and the extension knowledge based view is considered appropriate for the study, since knowledge is the critical resource. KM is viewed as a process/operation with the major division of creation, sharing and implementation.

This chapter is organised in-line with the layers of researcher design. After presenting the research questions, the philosophical position of critical realism, qualitative methodology, inductive approach, and knowledge based theory, are briefly discussed. Research exposure for a think tank has a value added for the research, which is explained further. Later the details of context, participants, research methods, data analysis, ethical care, and quality criteria are presented in detail. Before concluding, the chapter discusses the generalisability, researchers' subjectivity and originality and limitations of the research.

## 3.2. **Research questions**

The increased interest to explore the relationship of knowledge management and organisational performance has highlighted how the link has been considered obvious and assumed to be positive (Crossan et al., 1999). Furthermore the rhetorical nature of the field has proved a hurdle to explicate the phenomena (Spender and Scherer, 2007). The demand to explain the relationship is justified in the present study, which attempts to explain it. Preliminary interviews provided a focus for the research aim and base for the research questions. The initial research questions presented in the initial

and refined proposal were developed on the basis of practical industry experience, acquaintances with the field, and the preliminary literature. With each passing day, an increased understanding and familiarity with the field, research methodology and practices, experience and expert discussions had an impact on the development of research questions (c.f. Eisenhardt (1989). The research questions were backed by the assumptions that knowledge management could play a role in organisational improvement and Pakistani think tanks lack in their adoption of formal knowledge management. A thorough literature review provided the actual focus, essence and key strategy for designing the research questions. The questions kept the pace of development through supervisory support; blind peer review through several renowned conferences and symposium submissions, and workshops, training and collegial discussions. Field work and further data analysis provided confidence in the right direction for the research questions and clarity with its ideas (c.f. Tuckett, 2005). An improved command of the technical language within the knowledge field, along with improved English language skills and research methodology skills of the researcher, provided refinement to the research questions. The present study defines the research questions as follows.

> RQ-1: How does knowledge management occur in Pakistani think tanks and how considerable is the awareness?

Above research question was formed with the assumption of lack of explicit knowledge management existence in Pakistani think tanks. The researcher's experience, at a Pakistani think tank, related its working to knowledge management. Whereas, improved understanding of the field of knowledge management strengthened the

belief of its existence in Pakistani think tanks. The research question refined over time to capture the level of awareness, existing in Pakistani think tanks.

> RQ-2: How do formal and informal knowledge management practices vary across Pakistani think tanks?

Explicit knowledge management implementation emerges from structured approach and is more formal in nature (Carrillo *et al*., 2003). Whereas tacit knowledge sharing performs better in informal setting (Hassan *et al*., 2016; Mungai, 2014). The combination of explicit and tacit knowledge demands for balance of formal and informal approach towards knowledge management. Furthermore, a concern towards the lack of explicitly implemented knowledge management programs in Pakistani think tanks, required to capture the informality of knowledge management along the formal knowledge management activity.

> RQ-3: How practical are the knowledge management enablers within Pakistani think tanks?

The rhetoric field of knowledge management (Früauff *et al*., 2015) has produced complex literature, which lacks clarity, standardised definitions, demarcation of knowledge resources, knowledge assets, knowledge management enablers, intellectual capital, etc. The literature has presented multiple titles for the factors supporting knowledge management, which may vary in their combinations in different settings. Hence, making it necessary to investigate knowledge management enablers in Pakistani think tanks. Moreover, it is important to state that enablers are considered as the receptacles of knowledge management in the present study. Since, the key

idea was to ascertain the existence of knowledge management in Pakistani think tanks, so the question of refraining factors were beyond the scope of the present study.

> RQ-4: How does the relationship between knowledge management, organisational strategy and organisational performance differ across Pakistani think tanks?

The usefulness of an activity appears with its outcome, along defined objectives. The growing interest towards knowledge management and its relationship with organisational performance, demands for explanation. The related literature supports the assumption that knowledge management enhances performance, but failure of certain knowledge management implementations have raised a question. Strategic nature of knowledge and consideration of knowledge management as a strategic agenda, creates an urge to investigate the triangulated relationship of knowledge management, organisational strategy and organisational performance. Empirical evidence from highly knowledge intensive organisations, such as think tanks, could change the approach towards knowledge management. Whereas, the context of Pakistan is unique in terms of level of awareness and implementation of knowledge management.

### 3.3. **Research philosophy-critical realism**

A study of philosophy by management students has yet to contribute significantly towards management and organizational studies (Small, 2004). Generally, philosophy is considered the study of abstract problems and has no link to routine life challenges. Attempts to define philosophy originated in the fifth century and were linked with knowledge and understanding. Philosophy, from religiosity to empiricism, can be sub-divided into ontology, epistemology, morality, and values and behaviours. Moreover,

philosophy of management is a relatively new area. The term ‘management has been long debated as vague and variety exists in dealing with the ‘management philosophy’ in literature (Litzinger and Schaefer, 1966). “For, until philosophers become managers or management people learn the power and grace of philosophy, no ultimate philosophy of management can evolve.” (p. 342)

The rhetoric nature of knowledge, knowledge intensive organisations and the field of knowledge management demands an exploration of paradigmatic variation and a well-defined philosophical position (Spender and Scherer, 2007). Philosophical underpinnings grow from the very beginning of a research project and every other aspect of the research project is shaped accordingly. Establishing a philosophical position is encouraged within management and organisational studies (Small, 2004). Spender and Scherer (2007) reviewed several philosophical matches in regards to the study of knowledge management. They concluded that very few papers in the field of KM address the philosophical need and position. Philosophical assumptions are to know the nature of reality at an ontological level and to understand the nature of knowledge at an epistemological level (Holden and Lynch, 2004). According to Polanyi, a theory emerges as a result of knowledge creation from an existent (emergent historical situation). A radical three pronged critique provided by Zaman (2016) on Polanyi’s view is (1) limited perspective and explanation (2) need to remain in ‘what happened’ mode along the context rather ‘what will’ happen in unknown new context, and (3) togetherness/non-seperability of observer and observed. Moreover, emergent and non-ordinary situations become the cause, formulating a new theory.

Researchers assumptions regarding the nature of science and society underpin the philosophical positioning (Holden and Lynch, 2004). Generally, three philosophical paradigms are categorised with two extremes, positivism and interpretivism, whereas

the third lies in the middle, and is known as realism, with several variations, such as critical realism, post-positivism, and neo-positivism (Krauss, 2005). Positioning ourselves on extreme poles is considered less suitable for our purposes, considering the nature of the subject, context for primary research and the literature. Multidimensional gaps and the innate theoretical concepts lead us towards a middle approach, i.e. realism. Realist philosophy has two extremes one is social construction/post modernism and other is critical realism (Harre, 2002).

Social constructionism avoids the universality of human features and an interactive world (Harre, 2002). Social constructionism believes that all phenomena are socially constructed (Edley, 2001). It is less suitable for the study of the Pakistani context, since social constructionism says society constructs itself, which is less aligned with the social beliefs rooted in religion (Hassan, 1987). Pakistani researchers have strong social beliefs and for think tanks this truth remains true, independent of how people think. The social reality of Pakistan is no more than the basic necessities (CIA, 2016). Additionally, another closer philosophical match was discourse analysis, which looks at how things are constructed and not for facts and truths (Thomas, 2006). Grounded theory is another theory building approach, but the characteristics of partial grounded theory advocated by Bamford (2008) are closer to the approach followed by this study. Radical constructivism lies in the middle of realism and subjectivism and is difficult to adopt due to the changing positioning between critical realism and phenomenology (Spender and Scherer, 2007).

Phenomenology, a qualitative method, explores ‘explicit and implicit structure and the meaning of human experience’ (Sanders, 1982; p. 353). Unlike analytical methods, in which the philosophical position is primarily taken to analyse practice, phenomenology is a descriptive philosophical methods, involving intuition and insight. Covering both

objective and subjective contents, phenomenology caters to the consciousness of organizational myths, cultures and symbols. A challenge in embracing phenomenology is its hard technical language with Latin/Greek terms. When compared to the quantitative method, phenomenology lacks precision, the phenomena under study guides the method to be adopted by the phenomenological approach. According to phenomenology assumptions behind the metaphysical, questions need to be suspended to reach reality.

Action research was one of the initial priorities which has to be dropped, considering time constraints and geographic limitations. Action research is an emergent, gradual and cyclic process, with increased responsiveness, providing rigour and validation (Bamford, Forrester, Dehe and Leese, 2014). Research problem definition at the theoretical as well as the practical level initiates the action research cycle (Schiuma and Carlucci, 2007). Reluctances, prejudices and resistances in the way of implementation can be tackled carefully by action research.

Critical realism has the capability to handle complex organisational phenomenon (Wynn and Williams, 2012). Moreover, critical realism is the philosophy of social sciences (Baert, 1996). He added that critical realism originated with the strength of the anarchy created by the opponents of the two extremes of positivism and subjectivism. His argument in favour of critical realism was based on the realist recognition that human knowledge is limited. Critical realism lends importance to language and representation (Edley, 2001), since the reality is out there, and one could see it from a specified position and present it within a limited perception and understanding. Critical realism shapes the intellect, and has three basic contentions (1) scientific theories refer to structure and mechanism of the world and not the empirical events, (2) structure and mechanism are the only contingent related to

observable empirical events, (3) scientific knowledge of reality specifically social reality is never infallible and also be acquired through creative construction and critical testing of theories (Tsnag and Kwan, 1999; p762). The characteristics of complex topics such as knowledge, knowledge management, research and research organisations are not always observable and have tacit dimensions, which cannot be denied.

### 3.4. **Research methodology: qualitative**

Quantitative methods are inadequate to study multi-layered and dynamic phenomenon, while the qualitative approach is interpretative and naturalistic to observe and make sense of the setting and the meaning people have of a phenomenon (Vohra, 2014). Phenomenon of present study requires a qualitative understanding to address the missing link between knowledge management, organisational strategy and performance, within the context of knowledge intensive organisations (think tanks). The present research aims to build a conceptual framework presenting the details of the underlined constructs. The more tacit the phenomenon, the more qualitative the study will be. A lack of awareness, implemented programs and a need to capture informality of KM in the context organisations make a qualitative study effectively suitable. The theory generating, qualitative approach is in line with realism philosophy (Healy and Perry, 2000). The merits and demerits of the theory building process, as well as the success criteria, also requires research attention (Eisenhardt, 1989). Since the context is unfamiliar for the research of knowledge management, a quantitative study was not appropriate, as argued by Bamford, Moxham, Kauppi and Dehe (2015). Moreover, the reflected grounded reality picture is different, as the technical English terminologies are not known in these

organisations. Figure 3.1 presents the research design.

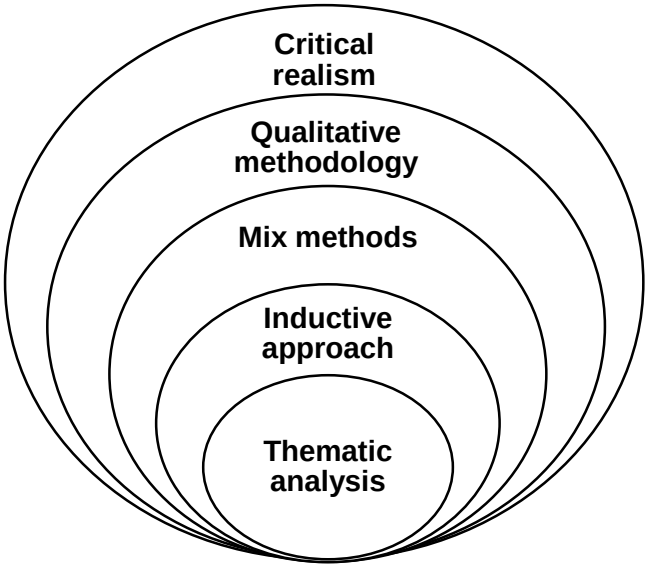


Figure 3-1 Research design

Klag and Langley's (2013) study attempts to describe the outcome of qualitative research and the impacts of different philosophical phenomena in building the theoretical and conceptual results. A lack of explanation and logic surrounding certain happenings/phenomena raises the question of its legitimacy. A conceptual leap reflects or describes a new idea based on empirical data leading towards a theory. Conceptual leaping is a merger of interwoven, interdependent, unequal, non-parallel and uneven conceptual leaps in connection over time and space. Uncertainty and ambiguity is the nature of this process. Conceptual leaping is impacted by four waves on the continuum, having two extremes of deliberation and serendipity, engagement and detachment, knowing and not knowing, and self-expression and social connectedness.

## 3.5. **Approach: inductive**

Qualitative approach, inductive logic and case study research are closely tied to each other (Eisenhardt, 1989). According to Mintzberg (1987) change from quantitative to

qualitative is in parallel to the shift from deduction to induction. Research questions refined by the literature review serve the initial point for inductive research. Later, with enhanced understanding, exposure to the research context, and maturity of the thought process, an emergence of inductive ideas occurred.

### 3.6. **Time horizon: cross sectional**

The data was collected during March-April, 2014, considering the leave allowed for data collection, the duration of the PhD, appropriate travel arrangements and suitable timing for field work organisations.

### 3.7. **Unit of analysis: organisations**

A decade ago, knowledge management studies were focused on corporations as a unit of analysis due to their intensive management (Mason and Pauleen, 2003). The unit of analysis of this study are small think tanks (policy research institutes), based in Islamabad, the capital city of a developing country - Pakistan.

### 3.8. **Management theory: KBV**

Strategic management theories aim to describe the phenomenon of firm performance and determining strategic choices (Grant, 1996). Meanwhile, it cannot ignore that performance management is a relatively ignored sub-field of management and organisational studies (Macpherson and Jones, 2010). The resource based view is a -popular management theory, where the unit of analysis is an organisation (Godsell *et al*., 2012). Modification from post industrial economies to knowledge economies has revised the management paradigms from RBV to KBV (Grant, 1997). The knowledge based view explains the reason for a firm's existence, scope, organisational capability, decision-making processes and aims of strategic collaboration (Grant, 1997). He

further analyses that KBV assumes the value addition by knowledge (Grant, 1997), which is the aim of the research.

Intensified global competition pushes R&D organizations towards the allocation of intangibles in-line with their overall R&D strategy, since intangibles drive innovation and organizational value, their appropriate allocation and deployment is a strategic decision and is particularly important for R&D organizations (Pike, Roos and Marr, 2005). RBV is an example of a strategy model emphasizing efficiency. Moreover, internal resources remain the focus of RBV, in order to realise an organization's unique resources and competencies. Inimitable, not substitutable, tacit and synergistic resources provide a sustainable competitive advantage, as guided by RBV.

Su *et al*. (2016) highlight the need of further investigation into a theoretical lens to link knowledge creation capability with organisational performance. They criticised how the resource based view lacks in providing the justification for the relationship between knowledge resources and performance. Suggesting a tripod strategy perspective by combining the industry based view, the resource based view and institution based view, they attempted to more deeply investigate the relationship's different levels and are well-known within the strategy literature. An industry based view offers insight into the industry and is relevant to identify the industry's position, which is not within the scope of the current study. The external focus of the industry based view, the internal focus of the resource based view and societal focus of institution based view, left the decision in favour of the resource based view, within the current scope of the study.

As the study aims to highlight the knowledge resources hidden in Pakistani think tanks, the resource based view is the best choice as a theoretical lens.

RBV, CBV (Competence-based view) and KBV provide a strategic input or competitiveness from knowledge assets, which are hard to transfer, accumulate, inimitable, not substitutable, are tacit in nature, synergistic, not consumable because of their use and the ways of combining and developing them (Schiuma and Carlucci, 2007). Nikolaou (2017) used an intellectual capital based view and knowledge based view, arguing that the combination is not widely used. Extending through a resource based view he argued that a competitive advantage results from the uniqueness of tacit and explicit knowledge. Furthermore, knowledge integration is required for a competitive advantage. He considered how the standalone position of KBV is not a

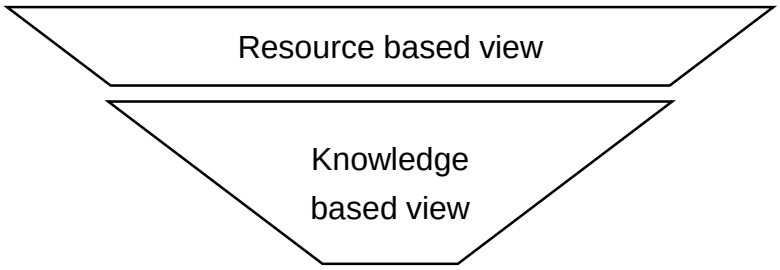


Figure 3-2 Management theory: RBV & KBV

mere extension of RBV, reflecting the strategic nature of knowledge leading to a competitive advantage.

Institutional theory possesses its own importance in understanding organisations. Arshed (2017) has made use of institutional theory to ascertain the formation of policy ideas in think tanks. However current study is focused on knowledge management, where knowledge resources have a unique influence, thus requiring the lens of a knowledge based view. According to the knowledge based view, knowledge is considered the most strategic resource that can be created, acquired and used within organisations (Ariffin, Mohtar and Baluch, 2015). They further argued that a knowledge

based view within organisations improves their absorptive capacity and supports competence building.

Knowledge based view had been used by wide scale theoretical and empirical studies (Valtakoski, 2017). Furthermore, knowledge based view, consider knowledge as strategic resource and creating, integrating and transferring knowledge as organisational purpose. Valtakoski (2017) explained that resource based view develops static view of competitive advantage, whereas, knowledge based view considers organisational renewal. Presenting the characteristics of knowledge based view Valtakoski (2017) described that it had proved success over individual, group and organisational level of analysis. The key feature of KBV at organisational level is collective knowledge embedded in organisational culture. KBV have the capability to cater range of knowledge types ranging from tacit to explicit. KBV have the ability to cover components knowledge as well as collective system knowledge. Additionally, Valtakoski (2017) characterised KBV over the activities of codification, knowledge integration, replication and knowledge transfer.

### 3.9. **Researchers experience at a think tank**

The researcher's first direct acquaintance with any think tank was during the summer break of her MBA in 2007, when she attended a course on capacity building and personality development in a research and training organisation. Interaction with and exposure to research organisations and TTs, motivated her to apply for internship at a think tank to fulfil an MBA degree. The positive experience of the internship made it a convenient decision to join the TT industry, rather than the conventional job market, after completing the MBA. It was not difficult to put aside the opportunities from a leading bank, a national corporation and a multinational corporation to join a small think tank organisation. The main attraction in the opportunity was its conducive

environment and learning opportunities, although the progression opportunities were narrow. A rich library, publication opportunities, interaction with well-known scholars, and a direct observation of high profile forums were the charm of the organisation. Being an 'assistant research coordinator/assistant manager human resource' provided ample opportunity for a deep understanding of the organisation. Undertaking management and organisational tasks, provided ample opportunity to experiment with required improvements. During 4+ year's tenure, progressing from the operational to the strategic level, the researcher has held several positions, including research coordinator, database administrator, webmaster, IT manager, manager coordinator, coordinator women section, etc. With true dedication and belief in improving the organisation, the first consideration was of technology as the required solution. Efforts to improve the technological infrastructure succeeded despite financial limitations and resistance to change. The required improvements, along with material limitations, increased the researcher's anxiety, along the other team member's. The production of knowledge, as the cause of the institute, and motivation behind the personnel, made them perform, in the dilemma of saudade. Meanwhile, the emerging field of KM attracted the researcher. One significant point here is that researcher has a first master's degree in computer sciences, with a special interest in artificial Intelligence, and later obtained another master's degree in business administration, in the midst of the challenges for adopting computing technology by the corporate world in a developing country. The amalgam of computer sciences and business administration raised an interest in further education in the subject of knowledge management. The urge for improvement within TT organisations opened the doors for a PhD in the field of knowledge management in think tanks.

## 3.10. **Preliminary interviews**

Table 3-1 Interviewee's profile of preliminary interviews

| |
|---|
| The head of the research team in a participant think tank, with 15 years of experience, research expertise in economics and international relations, co-editor of the main Journal of the think tank, and an established journalist. |
| An experienced anthropologist, with 25 years' experience involved in country-wide projects with leading organisations, served as department head in a university and also supervised PhD and master's projects in social sciences. |
| An author, trainer and management professional, associated with a well-known organisation as HR head, conducting research in HR, management, and religious studies, etc. |
| A foreign PhD holder, researcher in KM, and other sub-fields of management, serving as head of the management department in a university and attached with several other universities, who also supervises PhD and masters research. |
| With over 40 years of experience, a well-known professor of economics, society and Islamic studies, the author of several publications and founder of several academic institutions world around. He is still serving as a founding chairman of a think tank. |
| A senior scholar with over 40 years of experience, professor of social sciences, founder of a social enterprise, aluminous from several well-known institutions and award winner - civil servant by profession. |
| Ex-commissioner of the Rawalpindi city. |
| Head of the research, monitoring and evaluation department in an international NGO. Ex-manager of administration in a participant think tank, with 15 years' experience of management, operations, research, training and consultancy. |

Preliminary interviews were conducted by taking appointments through personal contacts. Interviews were semi-structured and semi-formal, and lasted from 20 minutes to an hour. Written notes were made wherever necessary, since the interviews remained conversational, with the defined aim of pursuing PhD research. A brief profile of the 8 Interviewee's is presented in table 3.1. Along with these interviews,

several informal discussions also took place with the practitioners in the think tank industry, and with academics of Pakistan, keeping the aim of the research in mind.

## 3.11. **Context**

Empirical studies of KM-OP are required, in the context of developing countries (Payal and Debnath, 2015). A naïve context is less biased towards theory building research (Eisenhardt, 1989). The context selected for the research is itself a contribution by the research, since the extant literature has not given it much attention, till date.

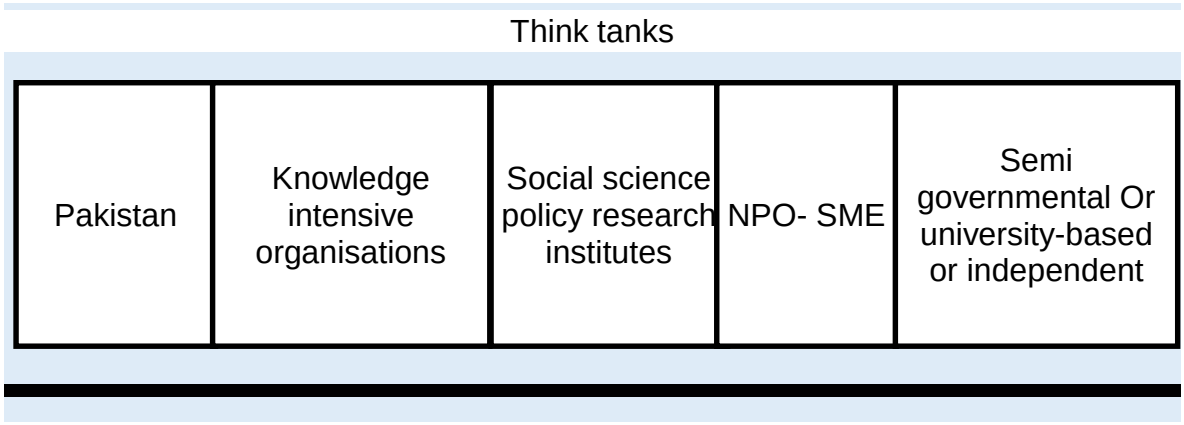


Figure 3-3 Contextual research gap

A developing country such as Pakistan faces many struggles for survival along the lines of the specific struggles in the field of research. Furthermore, Pakistani think tanks are in their nascent stages (c.f. Sayed, 2012). A summary of the context used in the study is shown in figure 3.3.

It is important to note that think tanks are knowledge intensive organisations, where knowledge is the input for knowledge intensive processes of research, which in turn produces knowledge output. This is represented in figure 3.4.

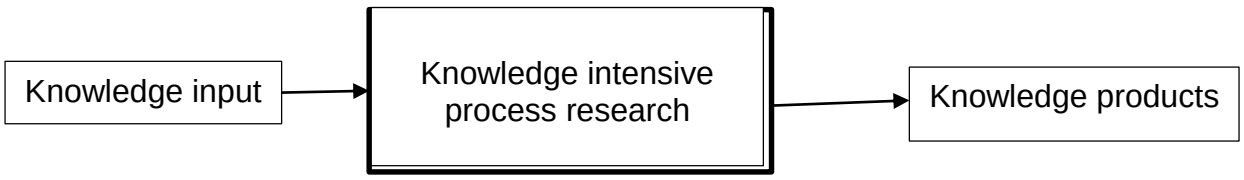


Figure 3-4 Think tank organisations structure

## 3.12. **Participant organisations**

This section presents details of the participant organisations, including initial networking in the Pakistani think tank industry. Secondly, the research population and access to them is presented. After discussing gate keepers, access to the individual participants is presented.

### 3.12.1. **Geography of participant organisations**

Mendizabal (2015) observed that think tanks have long being residing in the capital cities, whereas TTs of developed countries have started moving away from the hassle of capital cities. For Pakistani TTs, Islamabad is the hub, after which Karachi (old capital) takes the lead. Lahore is another important city with a number of think tanks. The present selection remained confined within Islamabad, due to limited financial resources, access and time.

### 3.12.2. **Preliminary visits to potential participants**

To strengthen the research proposal of knowledge management in Pakistani think tanks, and attain the feasibility of the project, rapport development was planned during September-November 2012. A total of 9 organisations were listed for participation through the snowball technique and the industry awareness of the researcher. A methodology of general inquiry via emails to organisations was adopted, along with requests to visit them in person. Specific contacts were gathered through the official websites of the relevant institutes. In the event of no response to general enquiry, the email is forwarded to the specified person, followed by phone calls. Schedule constraints created restrictions for two organisations, i.e. the Sustainable Policy development Institute (SDPI, 2016) and the South Asian Strategic Stability Institute

(SASSI, 2014), although they provided verbal consent for research participation whenever they were pursued. A follow up with the Islamic Research Institute (IRI) remained uncompleted due to time constraints and response delays. Whereas, Pakistan-China Institute's (2013) chairmen responded to the meeting/visit request by providing his recent publication, addressing the potential interview questions in relation to the theme suggested in the enquiry email. The Institute of Policy Studies, Islamabad was the former employer of the researcher, and intensive discussions were conducted with colleagues there to pursue the research. The names of the think tank organisations are presented below in table 3.2. Written notes were made during the visits, including observations and discussions. The notes were reviewed multiple times, specifically to develop an initial understanding, in planning the field work, and in reflecting on the research methodology.

Table 3-2 Think tanks visited in first phase

| |
|---|
| Institute of Strategic Studies, Islamabad (ISSI) |
| Islamabad Policy Research Institute (IPRI) |
| Institute of Regional Studies, Islamabad (IRS) |
| Pakistan Institute of Legislative Development and Transparency (PILDAT) |

### 3.12.3. **Research population**

An attempt to make a comprehensive list of Pakistani organisations for whom the title of 'think tank' is attached was made, as no such list was available. A research participant shared that he had conducted research about Pakistani TTs and developed a list. The research had not been published due to intellectual property rights issues. The available listings on Global go to think tanks, NIRA directory, The Statesman's year book, Asian development bank studies, On Think Tanks, Transparify, Wikipedia and a few blog posts, lack information about Pakistani TT's. For example, NIRA listed just two TTs of Pakistan, and the directory does not update. Transparify includes two

Pakistani TTs, and on average 2-3 were listed in different year reports of Global go to think tanks. As a result, there was an effort to list Pakistani TTs, and later, a short-listed version was prepared. Preference is mainly given to organisations with a scope on social science, their similar nature, and who are geographically located in the capital city of Islamabad bearing in mind access to the organisations in terms of financial and time resources.

### 3.12.4. **Sample set organisations**

Table 3-3 Sample set think tanks

| |
|---|
| Centre for Research and Security Studies (CRSS) |
| Centre of International Peace and Security (CIPS) |
| Institute of Policy Studies, Islamabad (IPS) |
| Institute of Regional Studies (IRS) |
| Institute of Strategic Studies Islamabad (ISSI) |
| Institute of Strategic Studies, Research & Analysis (ISSRA) |
| Islamic Research Institute (IRI) |
| Pakistan institute of development economic (PIDE) |

Figure 3-5 The Process of access to the participant organisations

Vohra (2014) urged for a proper explanation of sample size, with a view to reduce the ambiguities of the qualitative research. Moreover, the quality of a case depends more on information richness than sample size, which freezes upon saturation. Table 3.3 lists the 8 participant think tanks.

### 3.12.5. **Access to participant organisations**

The unit of analysis in this study are organisations; permission from the organisations in the sample set was required (von Maravic, 2012). Formal letters were emailed to 13 organisations, aiming to introduce the research study and develop a rapport. Sample letters are included in appendix A. These letters included a request to provide written consent for research participation. On having written consent from 7 organisations, further proceedings were made.

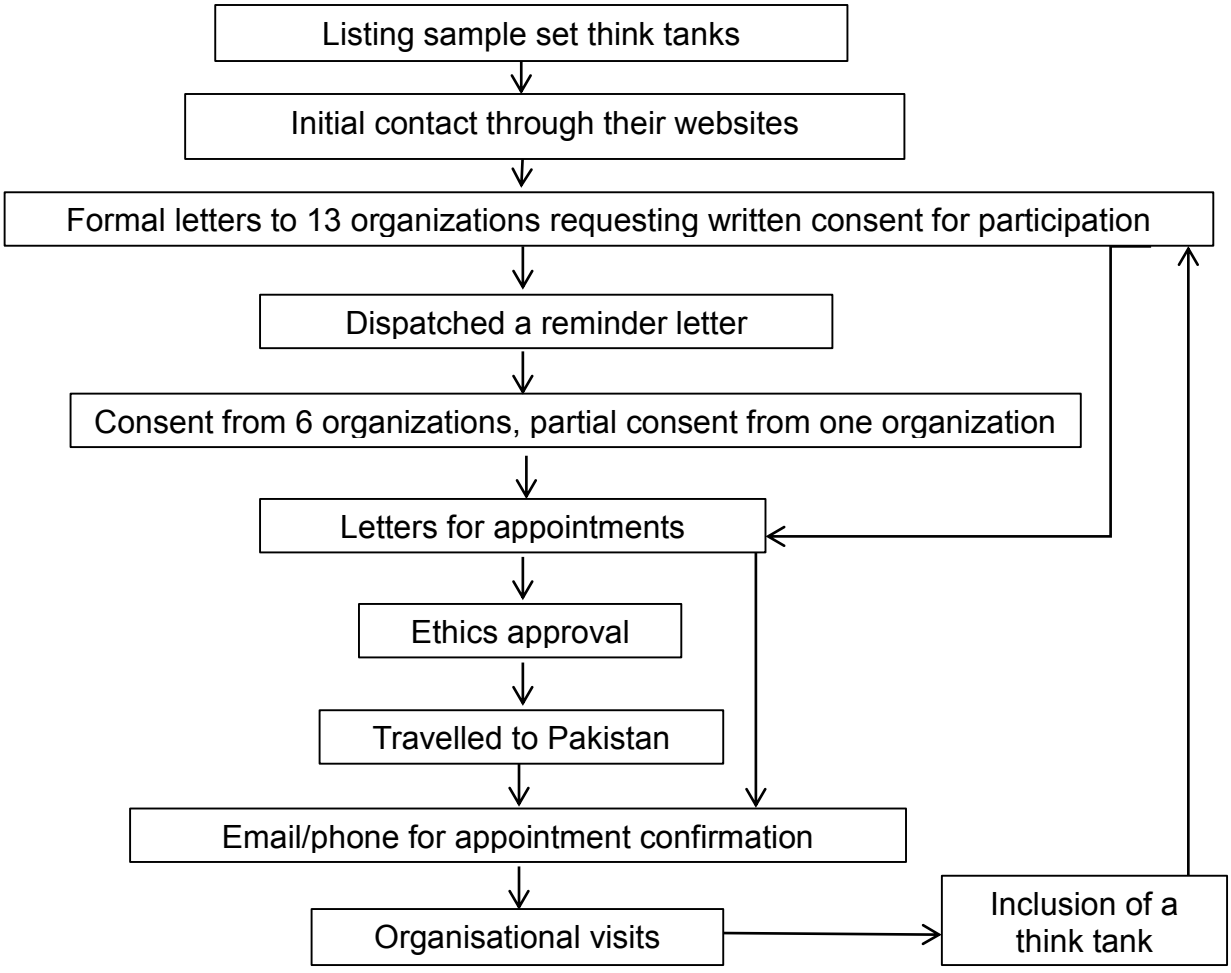


Figure 3-6 The process of access to the participant organisations

In the second phase of communication, another set of letters (see appendix B) for appointments to visit their organisations were made. Nearer to the time of appointments, another set of confirmation emails was sent to the participant

organisations, intimating to establish appointments with individuals and create a meeting plan. A day before the first visit of the organisation, further contact was made to confirm the arrival and physical access to the organisation. The process is summarised in figure 3.5. The researcher kept the utmost flexibility, as advised by Bamford (2008), actually being on the field varies from what was originally planned. According to the routine organisational procedures, the first entry into the organisation was conducted as a guest, to see the gate keeper in the sample set of organisations. After introduction with the official gatekeeper, and on his/her instruction, the researcher was provided with a defined procedure for entry into the organisation, accessing individuals, and other logistics. First interaction at the organisation through the gatekeeper remained with the person in authority who welcomed the researcher. They had briefing about the purpose and plan, and provided valuable suggestions for interactions within the given time frame. A daily timetable for the week was planned, in consent with the authorities, to interview their personnel. Observations and document collection remained parallel to that. During the whole process, the researcher had contact with the participant organisations via email and phone.

### 3.12.6. **Gatekeepers**

The gatekeeper's role has been undeniable in providing access to the interviewees, and the observation of objects and documents. For this purpose, a professional relationship was initiated. After gaining the approval of organisations, an appointment schedule for each interview and observation was made in consensus with the organisations, and with the help of gatekeepers (Mack, Woodsong, MacQueen, Guest and Namey, 2005). Gatekeepers could be categorised into three types, which are summarised in table 3.4. A less formal relationship with the friendly gate keepers supported making the visits efficient and effective.

Table 3-4 Categories of gatekeepers

| |
|---|
| • Authoritative person in contact |
| • Official gatekeeper |
| • Friendly gatekeeper |

### 3.12.7. **Access to participant personnel**

One cultural feature of Pakistan is their innate respect for guests (Khurshid, 2016). An example of which was the way that participants responded. An effort was made to obtain list of employees and appointments through official gatekeepers. Later, the snowball technique was primarily used to contact individuals for participation. Initial individual appointments were mostly made through gatekeepers and introductions were through email, phone and face-to-face interaction, either directly or through their personal assistants. Interviewees were selected in consent with the organisational authorities and with prior individual consent. The participants themselves (being researchers) were familiar with the research process and were sympathetic to the activity. Senior participants were more affectionate and made effort to guide as much as possible. Participants expected the research to be beneficial for the researcher and believed it would provide suggestions for the improvement of their organisations.

Individual consent to record and report was made explicit before each interview, bearing in mind anonymity and confidentiality requirements. Wherever it was felt that the participants had concerns, it was clearly stated that the researcher is (1) complying to the university ethics policy, (2) will carry the anonymity and confidentiality code throughout the research, (3) will access them with the written consent of the institute's authorities, (4) and will keep the individuals deliberations anonymous and confidential from the institutes as well. It was made clear that the researcher will be using the

provided information to formulate a PhD thesis, form organisational case studies, and publications.

## 3.13. **Research methods**

The research methods of physical sciences and social sciences differ significantly (Britton, 1983). Method's choice needs to be more intelligent and pragmatic, rather than merely sticking to an epistemological approach (Buchanan and Bryman, 2007). Qualitative methods take research beyond testing, involving deeper knowledge (Britton, 1983). Organisation size, location and nature, along with the stability of the research site, play a role in the methods choice (Buchanan and Bryman, 2007). Furthermore, Buchanan and Bryman argue that the methods choice needs to be acceptable by the relevant audience. They discuss how the researcher's social and networking skills impacts upon the organisational research. Moreover, the researcher's personal choice, expertise and level of comfort also derives the methods choice. The choice proved successful for the study, according to the culture of the organisations under study. Strong construct substance is achieved by triangulating data collection methods (Eisenhardt, 1989).

### 3.13.1. **Multiple data sources**

A single key informant for data collection, a use of single data source and lack of case studies are gaps found in KM-OP studies (von Maravic, 2012; Payal and Debnath, 2015). Mixed methods at the data collection stage are used to minimise the inherent weaknesses of interviews, observations and document analysis (Johnson, Onwuegbuzie, and Turner, 2007) and further achieve validity (von Maravic, 2012). Data collection strategies adopted for the research are presented in figure 3.7 and discussed in the sub-sections below.

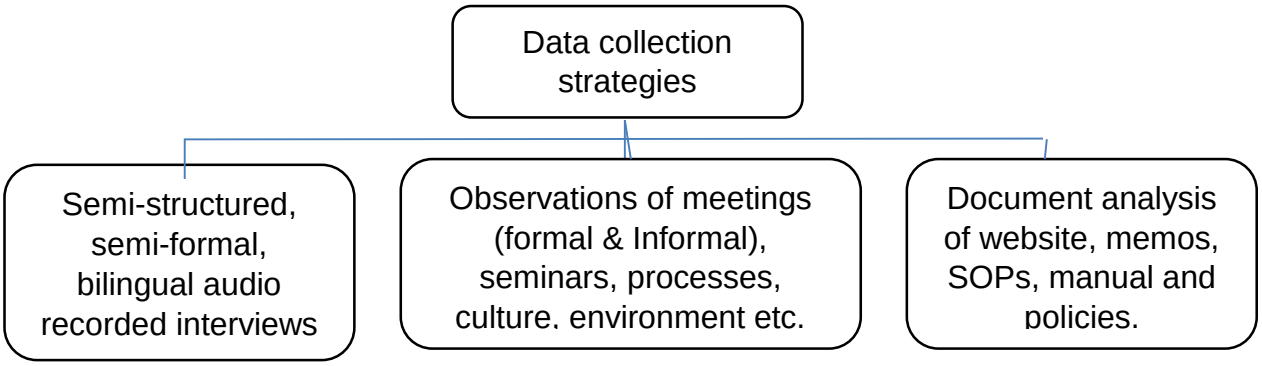


Figure 3-7 Data collection strategies

#### 3.13.1.1. **In-depth Interviews**

A systematic review by Payal and Debnath (2015) of knowledge management and organisational performance found that interview analysis has been rarely used. Interviews of semi-structured, semi-formal and bilingual patterns were conducted for the research. Snowball participation may also have an impact on the process. Open-ended questions help to minimise the researcher's influence and brings in rich data (Vohra, 2014). Interview duration varied from five minutes to four hours at the interviewee's office or organisational meeting room. The interviews are mostly audio-recorded, and journal notes were made. Table 3.5 presents the interview protocols.

A less formal version of the interviews is referred to as a discussion, wherein there is greater linguistic flexibility than a standard interview protocol. A mix of Urdu and English was used depending on the participant. The audio recordings, notes, the number of participants, duration and venue provided rich insights. The discussion protocol is presented in table 3.6.

Table 3-5 Interview protocol

1. What are the objectives of [your think tank]?
   a. (What does [your think tank] do?)
2. What do [your think tank] require doing that?
   a. How do [your think tank] identify these requirements?
   b. How do [your think tank] get these?
   c. How do [your think tank] creates which is not available?
   d. How do [your think tank] retain/store it?
   e. How do [your think tank] utilise these?
   f. How these resources are of value for [you think tank]?
3. How do [your think tank] utilise these to create value?
4. Who do you think benefits from [your think tank]?
5. How do [your think tank] measure the added value? (In respect of achieving the objectives).
6. How would/is the impact of [your think tank] assess?
7. How do you measure performance?
8. What are the performance gaps?
9. What is the best thing of [you think tank]?
10. Tell me one weak thing of [your think tank]?

Table 3-6 Discussion protocol

Discussions/informal interview protocol (mainly for individuals at lower level jobs)

1- What do you do at [your think tank]?

2- What do you require doing that?

   a. How do you identify these requirements?
   b. How do you get these?
   c. How do you create which is not available?
   d. How do you store these?
   e. How do you use these?
   f. How these resources are of value for you?

3- How do you utilise these to generate value?

4- Who do you think take benefit from your work?

5- How do you measure the added value of your work? In respect of achieving objectives?

6- How would/is the impact of you work assessed?

#### 3.13.1.1.1. Pilot interview(s)

To test the interview protocol, a pilot interview was conducted with a peer. It was found that the language of the protocol needed to be less technical for the layman. The pilot interview supported improvement of the protocol, and provided practice for the interview process. 54 minutes of resultant audio recording increased familiarity with the recording procedures, management of audio files and experience with the intensive listening. The first 6-7 interviews during the first 2-3 days of field work also served as a 'pilot exercise' and the interview protocol was further improved. Each interview was a wholesome experience and added value to the research, the protocol, interviewing skills and the researcher's learning.

#### 3.13.1.1.2. Audio recording

Organisational consent for participation in the research had explicitly mentioned that audio recordings would be made on agreement. Upon having individual appointments, it was again stated that audio recordings would be made with permission. At the start of each interview, the interviewee was asked that if he/she is comfortable with the audio recording and advised that they are free at any point during the interview to stop the recording process.

Table 3-7 Summary of audio recorded interactions institution wise

| Think tanks | Not applicable | Not allowed | Audio recorded | Grand total |
|---|---|---|---|---|
| CIPS | 1 | 0 | 4 | 5 |
| CRSS | 2 | 9 | 8 | 19 |
| IPS | 10 | 1 | 16 | 27 |
| IRI | 14 | 5 | 12 | 31 |
| IRS | 6 | 1 | 16 | 23 |
| ISSI | 13 | 0 | 15 | 28 |
| ISSRA | 10 | 2 | 19 | 31 |
| PIDE | 11 | 0 | 20 | 31 |
| Grand total | 67 | 18 | 110 | 195 |

Table 3.7 presents the institutional count of interactions that are considered, requested and recorded through an audio recording device. Table 3.8 presents the same with interaction types (interviews, discussions, meetings and conferences), rather than the institution.

Table 3-8 Summary of audio records according to interactions type

| Interactions | Not applicable | Not allowed | Audio recorded | Grand total |
|---|---|---|---|---|
| Conference/seminar | 5 | 0 | 0 | 5 |
| Discussion | 58 | 6 | 6 | 70 |
| Interview | 3 | 8 | 103 | 114 |
| Meeting | 0 | 1 | 1 | 2 |
| Phone interview | 1 | 3 | 0 | 4 |
| Grand total | 67 | 18 | 110 | 195 |

Approximately 15% of the interviewees did not permit audio recordings and 3% later permitted to record. Approximately 30% of the interviewees either stopped the recording in the middle and later continued, or kept a few points till the end to share 'off the record'. The procedure was strictly observed and the audio recorder was stopped if it was felt that the interviewee was not comfortable, or if they asked to stop it. A personal digital hand held Sony audio recorder was used throughout the field work, for which prior training had been taken to ensure a smooth process. Extra batteries were kept for backup and at the end each day the proper functioning of the device was ensured. There was an instance when the batteries were cast off and a purchase from nearby shop was made. During an interview, the audio recording device malfunctioned and it was not clear whether the recording was being made or not. For backup, the recording was doubled through researcher's personal iPhone.

3.13.1.2. **Observations**

Social theories can be better valued through grounded observations and evidence (Bamford, 2008). It is observed that the participants engaged seriously and shared their candid opinions. A hospitable and research friendly culture provided flexibility for

the researcher to do her work with little thought that she is an ‘outsider’. ‘Social science observations are unique’ (Tsnag and Kwan, 1999; p761) and are rarely replicated.

The intention was to observe the structure, environment, culture and processes to gain insights into the organisational KM. Seminars/conferences, meetings, offices, informal communication, and working styles were observed. Wherever it was possible and required, pictures/images were taken along with journal notes. Observations mainly served the purpose to cross check the interviews/discussions. Table 3.9 provides a guidance protocol for taking observations and table 3.10 provides the object code to make the process specified, but not restricted.

Table 3-9 Observations guide

| |
|---|
| Q1: What is the level of KM awareness? |
| Q2: What are the formal KM practices? |
| Q3: What are the informal KM practices? |
| Q4: What is the impact of KM on performance and operational efficiency? |

Table 3-10 Observational objects code

| |
|---|
| • Notice boards |
| • Office layouts |
| • Collegial communication |
| • Common areas, for example, libraries, common rooms, cafeteria etc. |
| • Cultural observations like wall paintings, quotes, calligraphy etc. |

#### 3.13.1.2.1. Observations recording

Formal permission for recordings was requested during the consent and appointment requests. Permission was confirmed on the day of first visit and meeting with the gatekeepers/persons in authority; this permission of verbal.

For observations, the recording tools used were an audio recorder (wherever permitted), pictures (with permission), self-audio recording and note taking, as presented in figure 3.8. If, for the discussions, organisational meetings, seminars etc.,

permission was granted, then audio recordings were made. Pictures of various settings, office layouts, noticeboards, decorations, libraries and files were taken on permission from the person in-charge. When it was not permitted, or /the situation had not allowed for requesting permission, a self-audio recording was made following the event. Field notes were made throughout the process. In situations where note taking could have disrupted the event, the notes were made afterwards. Reflections were noted at the end of the day in the same field diary.

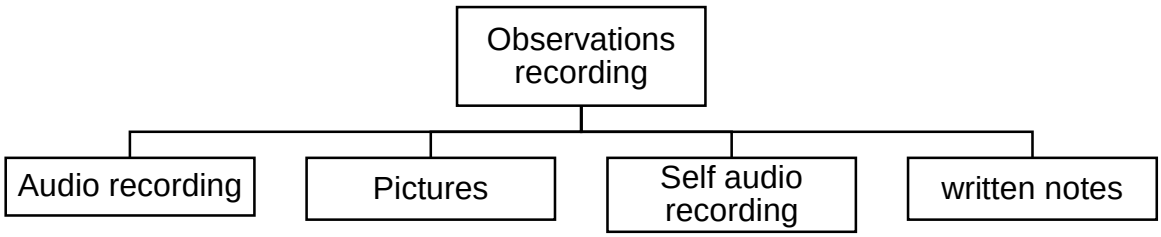


Figure 3-8 Tools for observations recording

3.13.1.3. **Document analysis**

Organisational websites, newsletters, audit reports, annual reports, policy manual, presentations, SOP's and other documents were collected and analysed, wherever required, to support the interviews and observation transcripts. Repeated consultation of the documents continued throughout the writing process to confirm an understanding of the findings and to reference the evidence.

Table 3-11 Document analysis guide

| |
|---|
| Q1: What is documented about KM? |
| Q2: What relates to KM in documents, for example, communication, HR, IT policies, information exchange, etc.? |
| Q3: what is documented about performance? |

Table 3-12 Documents code

| | | |
|---|---|---|
| • websites<br>• Prospectus<br>• Newsletters | • Conference invitation schedules<br>• Published reports about organisations<br>• Policy manuals, SOP's etc. | • Presentations<br>• MEMO<br>• List of research staff. |

Table 3.11 presents the document analysis guide, and table 3.12 presents the documents code. As document analysis was only a secondary method used to triangulate the findings, relatively less energy was spent on it. It was welcomed wherever the participants shared the document themselves. The leaflets and newsletters available for free distribution were mostly provided at the first day of visit. Other easily shared documents were provided from time to time. Generally, when an interviewee referred to a document, he/she asked if I would like to have/see it. On mutual agreement, depending on the nature of the document, it was shared either in its original copy, photocopy, photograph, scanned copy, soft file on portable storage disk, web link, in an email, or referred to the relevant person. There were occasions when the interviewee/ gatekeeper was hesitant to share/show the document.

### 3.13.2. **Data generation**

Several experienced Pakistani think tank members contributed through interviews and discussions towards this research. McCormack (2000) describes how interviewee's make effort to theorise 'why' and form reflection on the basis of their experience. At least 7% directly have been involved in the policy making process in the country. Similar to Khurshid's (2016) experience, the openness and willingness of the participants added value. Hassan et al. (2016) explained it as a higher intention of knowledge sharing. The extensive data collected from the participants provided an understanding of TTs working from an insider's perspective, similar to Nicander's

(2016) explanation. Language remained active in data generation, rather than being representational. Figure 3.9 summarises the field work and the participant organisations profile from which the data was generated.

The number of interactions with individual participants held during the field work are

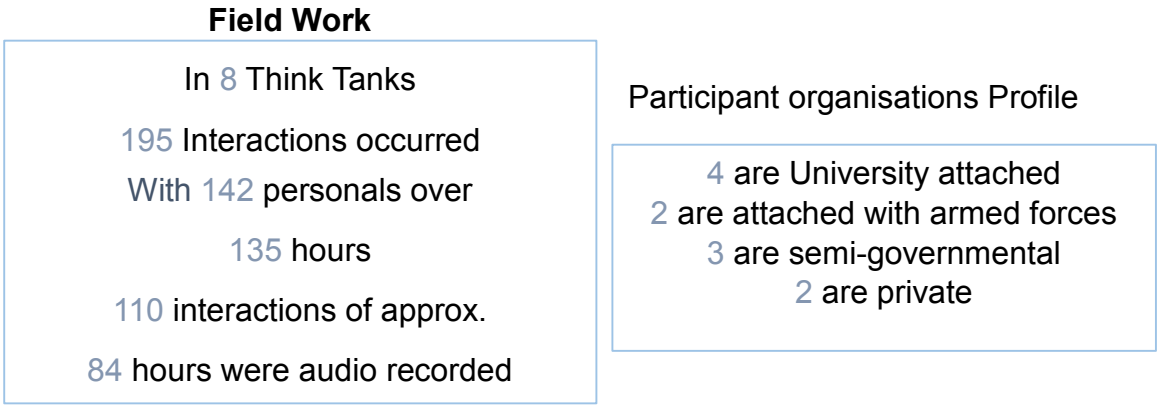


Figure 3-9 Field work summary

categorised as interviews, discussions, phone interviews, conference/seminars, and organisational meetings. A count of the interactions, institution and type are summarised in table 3.13, whilst a summary of the duration of the interactions is summarised in table 3.14.

Table 3-13 Summary of interactions count institution wise

| Think tanks | Interviews (more formal) | Discussions (less formal) | Phone interviews | Conferences/ seminars | Organisational meetings | Grand total |
|---|---|---|---|---|---|---|
| CIPS | 4 | 1 | | | | 5 |
| CRSS | 11 | 4 | 3 | | 1 | 19 |
| IPS | 17 | 10 | | | | 27 |
| IRI | 12 | 16 | 1 | 1 | 1 | 31 |
| IRS | 17 | 6 | | | | 23 |
| ISSI | 14 | 12 | | 2 | | 28 |
| ISSRA | 20 | 10 | | 1 | | 31 |
| PIDE | 19 | 11 | | 1 | | 31 |
| Grand total | 114 | 70 | 4 | 5 | 2 | 195 |

Table 3-14 Summary of time duration (in hours) for various interactions

| Think tanks | Interviews | Discussions | Phone interview | Conferences /seminars | Organisational meetings | Grand total |
|---|---|---|---|---|---|---|
| CIPS | 4.45 | 0.17 | | | | 4.62 |
| CRSS | 5.90 | 1.15 | 1.17 | | 0.25 | 8.46 |
| IPS | 15.54 | 2.42 | | | | 17.96 |
| IRI | 8.45 | 5.57 | 0.17 | 1.50 | 1.70 | 17.38 |
| IRS | 14.98 | 1.08 | | | | 16.07 |
| ISSI | 12.61 | 5.92 | | 12.00 | | 30.52 |
| ISSRA | 14.97 | 3.84 | | 1.50 | | 20.31 |
| PIDE | 15.35 | 4.08 | | 0.50 | | 19.94 |
| Grand total | 92.25 | 24.22 | 1.33 | 15.50 | 1.95 | 135.25 |

3.13.2.1. **Demographic details**

Demographic factors are important, since they may impact the results (Tahir, Abdullah, Ali, and Daud, 2014). The sample set of participants were mainly social scientists and support workers of the participant organisations. Interactions with 8 stakeholders and former members were also made considering their relevance and past positions. Contact with them was made through the relevant gatekeepers.

| | Researcher | Admin staff | Female | Male | Foreign qualified | Foreign exposure |
|---|---|---|---|---|---|---|
| | 86 | 56 | 40 | 102 | 27 | 63 |
| Qualification level | PhDs | MPhil | Masters | Graduates | College pass outs | School pass outs and below |
| | 21 | 44 | 53 | 10 | 3 | 11 |
| Service (years) | 30+ | 20+ | 10+ | 5+ | 1+ | less |
| | 18 | 21 | 14 | 34 | 37 | 18 |

Table 3-15 Interviewee's/discussants profile

Table 3.15 presents a count of the interviewee's including qualification levels, service duration, gender, foreign qualifications and exposure. An approximate count

differentiating researchers and administration workers, considering dominant position/work, has also been included.

Table 3.16 to 3.20 are extensions of table 3.15, presenting an organisational break down of interviewees/discussants qualifications level, service years, foreign exposure and qualifications, gender and dominant job type.

Table 3-16 Count of interviewees/discussants qualifications institution wise

| Think tanks | PhD | MPhil | Masters | Graduates | College pass outs/O Levels | School pass outs/Matric/A levels | Secondary school qualifications | Grand total |
|---|---|---|---|---|---|---|---|---|
| CIPS | 2 | 2 | | 1 | | | | 5 |
| CRSS | | | 10 | 4 | | | | 14 |
| IPS | | 5 | 9 | 2 | | | | 16 |
| IRI | 7 | 1 | 7 | 1 | | 1 | 4 | 21 |
| IRS | | 8 | 6 | | 1 | | 1 | 16 |
| ISSI | 3 | 12 | 4 | 1 | | 1 | 3 | 24 |
| ISSRA | 1 | 6 | 12 | 1 | | | | 20 |
| PIDE | 8 | 10 | 5 | | 2 | | 1 | 26 |
| Grand total | 21 | 44 | 53 | 10 | 3 | 2 | 9 | 142 |

Table 3-17 Count of service years of interviewees/discussants institution wise

| Think tanks | <1 | <5 | <10 | <20 | <30 | 30+ | Grand total |
|---|---|---|---|---|---|---|---|
| CIPS | 1 | 4 | | | | | 5 |
| CRSS | 8 | 3 | 3 | | | | 14 |
| IPS | 2 | 6 | 4 | 1 | 2 | 1 | 16 |
| IRI | | 1 | 6 | 1 | 6 | 7 | 21 |
| IRS | 1 | | 6 | 3 | | 6 | 16 |
| ISSI | 1 | 5 | 5 | 5 | 5 | 2 | 23 |
| ISSRA | 5 | 8 | 6 | | | 1 | 20 |
| PIDE | | 9 | 6 | 3 | 7 | 2 | 27 |
| Grand total | 18 | 36 | 36 | 13 | 20 | 19 | 142 |

Table 3-18 Count of interviewees/discussants with foreign exposure and qualifications institution wise

| Think tanks | Foreign exposure | Foreign qualified |
|---|---|---|
| CIPS | 4 | 3 |
| CRSS | 6 | 1 |
| IPS | 3 | 0 |
| IRI | 9 | 2 |
| IRS | 8 | 1 |
| ISSI | 13 | 9 |
| ISSRA | 9 | 5 |
| PIDE | 11 | 6 |
| Grand total | 63 | 27 |

Table 3-19 Count of interviewees/discussants gender, institution wise

| Think tanks | Females | Males |
|---|---|---|
| CIPS | 0 | 5 |
| CRSS | 5 | 9 |
| IPS | 4 | 12 |
| IRI | 1 | 20 |
| IRS | 5 | 11 |
| ISSI | 8 | 15 |
| ISSRA | 7 | 13 |
| PIDE | 10 | 17 |
| Grand total | 40 | 102 |

Table 3-20 Count of interviewees/discussants job type, institution wise

| Think tanks | Admin staff | Researchers | Grand total |
|---|---|---|---|
| CIPS | 3 | 2 | 5 |
| CRSS | 7 | 7 | 14 |
| IPS | 7 | 9 | 16 |
| IRI | 13 | 8 | 21 |
| IRS | 4 | 12 | 16 |
| ISSI | 7 | 16 | 23 |
| ISSRA | 6 | 14 | 20 |
| PIDE | 8 | 19 | 27 |
| Grand total | 55 | 87 | 142 |

### 3.13.3. **Type of data gathered**

Five main types of data are gathered for the research from the participating think tanks, namely, audio data, handwritten field notes, images, data from websites and documents. Each type of data is described in the below sub-sections.

#### 3.13.3.1. **Audio data**

Audio recordings were made for interviews, discussions, meetings and self-recording. All the audio data from the audio recording device was transferred to the researcher's private laptop, using 'Digital Voice Editor V3.3' made by Sony. Table 3.21 presents the sum of the audio recording's duration by institution.

Table 3-21 Summary of audio recording duration institution wise

| Think tanks | Audio recording duration (hours) |
|---|---|
| CIPS | 4.01 |
| CRSS | 3.41 |
| IPS | 14.00 |
| IRI | 8.71 |
| IRS | 13.51 |
| ISSI | 12.50 |
| ISSRA | 12.85 |
| PIDE | 14.99 |
| Grand total | 83.98 |

#### 3.13.3.2. **Handwritten field notes**

Field notes and a running commentary are the means for the overlap of data collection and analysis, being a combination of observations and analysis (Eisenhardt, 1989). Eisenhardt explains how field notes can be taken in two ways: (1) noting impressions (2) putting thought into it. Dated field notes for each participant organisation, with a distinct section for each interaction, are followed by name, designation/identity, time, and other relevant details. This resulted in eight A5 writing pads with hand written notes.

#### 3.13.3.3. **Images**

During the field visits, several images were taken by consent of the participants using the researcher's personal hand held device. The images were usually of notice boards, offices, layouts presenting cultural aspects, banners/posters, visitors' book, file/documents and publications.

#### 3.13.3.4. **Data from websites**

Since the research started, the organisational websites of the potential participants became the material to be studied. The websites were frequently accessed during several stages of the research. Websites provided the initial know-how of the Pakistani think tank industry, the organisations, personnel, products and activities. The websites provided a facilitation for the sample set selection, access to the organisations and the individual participants. At the planning stage of field work, websites were the main point of interaction, and made the researcher fully prepared. During field work, websites provided side support of the intensive data collection activity, in order to make initial sense of the contextual scenarios. During the transcription and initial analysis stage, website interaction had turned into a daily activity. The content of the websites was helpful to understand and link the context and subject phenomena. During the formal and final analysis stage, the websites became tools to enhance understanding and link the argument with the evidence. Involvement with the websites remained high at the writing up stage, and supported argument development in a concise manner, providing evidence with reference to the website. The website's data was not used under a specialised analysis tool/technique, rather it was used to develop acquaintance, know-how and understanding about the organisations and their knowledge management.

#### 3.13.3.5. **Documents**

A hand full of tangible documents were provided by the individual participants during the field work. These documents include prospectuses, historical diaries, memorandums, newsletters, catalogues, conference program booklets, meeting notices, organisational introductions and/or history booklets, employee evaluation forms, visiting cards, relevant literature, a list of publication, scholars, MoU's, subjects, library stock, and events. Among the soft documents were organisational presentations, financial reports, HR reports, newsletters, minutes of governing and executive body meetings, council documents and notifications, and organisational introductory booklets. The documents were consulted for relevant details and a greater understanding.

### 3.13.4. **Data collation**

A database has been created in Excel. This phase initiated immersion with the field diaries. The database developed over time, enhanced functionality and detail, and was presented in multiple iterations. Data entry into the database continued until the whole data was sorted. The main features of the database were filters, data validation lists and pivot tables. The database primarily included serial numbers, duration, type and date of interactions, name, count, designation, work type, gender, qualification, foreign qualification, foreign exposure, service years, contact detail of the participants, names of the think tanks, audio recorded, audio duration, transcribed, synchronised, coded, transcribed pages, unique codes and remarks. A sample image of the database is provided in Appendix G. The database supported the researcher throughout the process in managing and accessing data efficiently and effectively. Data organisation is integral to the overall process of data analysis (Tuckett, 2005).

### 3.13.5. **Data transcription**

The data was converted in to transcribed text, from audio, written notes, images, and documents (Taylor-Powell and Renner, 2003), using MS Word 2010. Audio files were verbatim transcribed. The written notes of the audio recorded interactions are synchronized with transcriptions to increase validity (Halcomb and Davidson, 2006). Non-audio recorded written notes were typed into the specified files of interactions.

#### 3.13.5.1. **Transcription software's and Auto transcription**

The key transcription software's are built to recognise the native English speaker, i.e. Western accent and does not insufficiently support the Asian/eastern accent and the Pakistani accent. The ExpressScribe, Dragon Dictation, Adobe Speech Analysis software, Voicebase, TheRecordPlayer are examples of software's that supports the process of transcription of a monolingual native English voice. A test for auto transcription was found less usable. For the purpose, a sample audio file is converted into a video file using Windows Live Movie Maker, and uploaded on the researcher's personal YouTube channel. By using the captions function, it is auto transcribed, giving the results as follows:

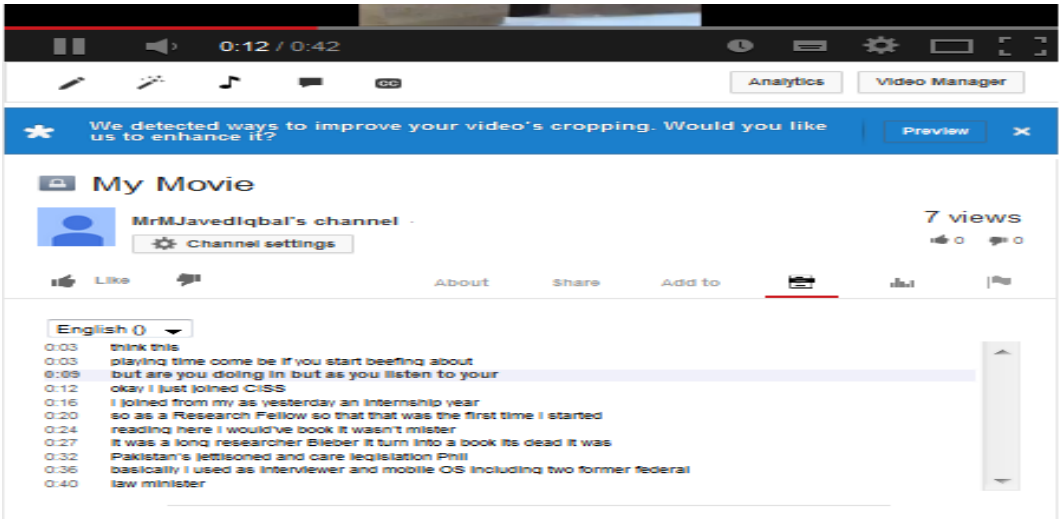


Figure 3-10 Snapshot of the auto-transcribed caption function of Youtube channel

A comparison with the original transcript is as follows

Table 3-22 Comparison of the results of auto-transcription and actual transcription

| | |
|---|---|
| think this<br>playing time come be if you start beefing about<br>but are you doing in but as you listen to your okay I just joined CISS<br>I joined from my as yesterday an internship year<br>so as a Research Fellow so that that was the first time I started<br>reading here I would've book it wasn't mister it was a long researcher Bieber it turn into a book its dead it was<br>Pakistan's jettisoned and care legislation Phil basically I used as interviewer and mobile OS including two former federal<br>law minister | thank you (x) for your time. If you start briefing about what are you doing and what is your research?<br>Ok. I just joined CRSS, I joined from March. Actually last year I did internship here as a research fellow. That was the first time I started writing here, I wrote a book it was a long research paper it turned into a book. Its title was Pakistan's challenges and anti-terror legislation, so basically I used the end view of (x), he was the former federal law minister |

The presence of multiple voices, the Pakistani accent, multilingual and background voices, since the interactions were held in a natural setting, made it less suitable for auto transcription. Accent differences created specific problems in the above exercise, which had converted 'what' into 'but'. Another strange change that could affect the whole essence was of changing 'writing' into 'reading'. Words that are not in English, such as the name X, were not recognised. This also means that the context related terminologies were not auto-transcribed, which have a high importance in the development of understanding. The software's standard input is a video developed using specialized technology and a sound proof environment. The interviews/discussions took place in a natural environment in the interviewee's offices. Another feature of the YouTube videos and their annotations was the translation of captions in Urdu and providing the same on the screen. However, this does not allow an auto transcription into an Urdu file.

#### 3.13.5.2. **Audio players**

Audio software for transcription was required, which can provide a digitised user front end to handle extensive analogue audio files. Such software can advance the transcription process by supporting play/pause functions, with more accuracy, whilst reducing transcription time. VLC player, Applian FLV and Media Player 3.1.1.12 and Digital Voice Recorder player were tested. All the above software give similar functionality and the researchers was most comfortable with media player due to default access and installation. Later, online software transcribe.wreally made the process efficient, with single window audio and text editors, along with play/pause, speed up/low, rewind/forward and save features.

#### 3.13.5.3. **Manual verbatim transcription**

A literature gap exits in the detailed process of transcription and related data management (Halcomb and Davidson, 2006; Lipadat and Lindsay, 1999). The processes of manual verbatim transcription initiated after returning from the field. A realisation of the time taking process diverted attention to search for auto transcription, transcription software's, audio software's and employing a transcriptionist. The employment of a transcriptionist has an inherent hindrance of cost, confidentiality, multilingual requirements and contextual understandings (Oliver, Serovich and Mason, 2005). A sample transcription was attempted by two friendly colleagues, who had multilingual skills and a contextual understanding, whilst keeping anonymity. The results were not satisfactory, mainly due to the benefits of transcriptions prepared by the researcher, loss of expression, body language and interview settings, lack of specific research understanding and familiarity with the specific terminology. Halcomb and Davidson (2006) argue that the way a transcriptionist hears and perceives the interview content has a material impact, and better results could be achieved by having

the interviewer as the transcriptionist. 110 interactions over approximately 84 hours were verbatim transcribed by the researcher, since the proponents of selective transcription are less (Halcomb and Davidson, 2006). Wherever required, expression and non-verbal behaviour is captured.

#### 3.13.5.4. **Tape time to transcription time ratio**

Tuckett (2005) suggested a range of ratios for tape time to transcription times (hours); 1:3 (Morrison-Beedy *et al*., 2001), 1:5 (Zemke and Kramlinger, 1982), and 1:6 (Britten, 1995). The author experienced 1:10 for the first few transcriptions, which later reduced to 1:7. Some possible reasons behind the higher ratio were (1) natural settings, hence recording noise, (2) low recipient voice, (3) multilingual content, and (4) diverse accents.

#### 3.13.5.5. **Transcription outcome**

The transcripts were mainly written in English, but the native language is retained wherever it was felt that the essence of the content may not be fully translated. Special attention was paid in translating the contextual words by forming word lists and matching the appropriate word through a bi-lingual dictionary, Google translate, and confirming certain words with knowledgeable colleagues. Later, the list of words was shared with a colleague to provide a list of English synonyms. The focus of translation remained on retaining an understanding of the content and on specific words, though, the transcripts were not perfect in terms of English grammar and sentence structure, and the conversational style was maintained. The main outcome of the transcription is a familiarity with and understanding of the data. Table 3.23 summarises the number of words that resulted from the transcription process for each participant organisation. Transcripts were checked against field notes and the audio data was listened repeatedly for any required corrections, similar to Mackey's *et al*. (2014) approach.

Table 3-23 Number of transcribed words institution wise

| Think tanks | Non-Audio recorded | Audio recorded | Self-recorded and other field notes | Grand total |
|---|---|---|---|---|
| CIPS | 0 | 37229 | 359 | 37588 |
| CRSS | 6786 | 21027 | 3769 | 31582 |
| IPS | 2696 | 106949 | 1260 | 110905 |
| IRI | 4464 | 56405 | 2620 | 63489 |
| IRS | 1378 | 101306 | 0 | 102684 |
| ISSI | 2602 | 88380 | 165 | 91147 |
| ISSRA | 2795 | 95758 | 1477 | 100030 |
| PIDE | 924 | 122541 | 584 | 124049 |
| Grand total | 21645 | 629595 | 10234 | 661474 |

#### 3.13.5.6. **Transcription of hand written notes**

Data transcription of non-audio recorded is no less challenging, since it involves reading hand written notes, which are mostly written in haste, in shorthand, including symbols and marks, etc. Another challenge with the data set was its bilingual nature, which required careful reading and re-reading. Easy access to the field diary required tags: yellow tags separate dates, pink tags separate individuals and orange tags separate meetings.

### 3.13.6. **Secure and safe data storage and management**

All collected data, including audio and image files, soft and hard documents, were safely stored by the researcher. At the field data was stored in an audio recording device, mobile phone camera and hand written diary kept in a personal bag. All soft data was transferred to the researcher's private laptop after returning from the field and uploaded to a virtual password protected drive as soon as possible. Uploading on Dropbox ensured the secure and safe storage of the data, bearing in mind the unreliability of the internet and electricity in the country where fieldwork took place. The data capturing and storage devices were carried by the researcher through the field and then kept in her private study room, in locked drawers, keeping the required

safety and security in mind. After the completion of field visits, transcriptions were made by the researcher herself, being careful with its confidentiality and the required data immersion. Transcripts were also stored on the researcher's private laptop, the university's secure desktop, the university's K drive and a password protected virtual drive (Dropbox and gmail).

Audio interview files and their transcripts were saved by the code names, which are listed against the participant names in a separate text file, to keep it identifiable as well as anonymous, concurrently. All the files were kept divided within the case study organisations folders. A researchers only key/password protected approach ensured the data's safety and security. Images were made using the researcher's personal mobile phone with pre-installed Dropbox, and the image files were uploaded as soon as possible, keeping automatically assigned names. The hard data was secured in distinct plastic folders for each organisation and placed in the researcher's personal locked drawers. Only the researcher had access to the data and care was taken while, having guidance from the supervisory team, that confidentiality was not lost. The researcher's laptop, mobile phone, and University PC are all password protected, and only researcher have access to these.

After returning from the field work country, the data at the university was copied from the online password protected drive to the PC allocated to the researcher by the University. Data was also copied to the university's K drive to ensure data security. For further work, data is accessed from Dropbox using the researcher's private laptop and the allocated PC at the university, and Dropbox has been synchronised with all these devices, whereas the university's K drive was used for the backup on a monthly basis. This ensured proper data storage in case of access problems to the online portal (K drive). Standard storage provided by the University's K drive was 3 GB, whereas

the data (mainly audio files) are approximately 8 GB. On special request, K drive storage was granted and used for the purpose.

The data is stored in distinct folders, with the names of the organisations to support ease of access. The raw data will be secure and safe for at least for 5 years after PhD completion. Figure 3.11 presents data storage over the several stages of research.

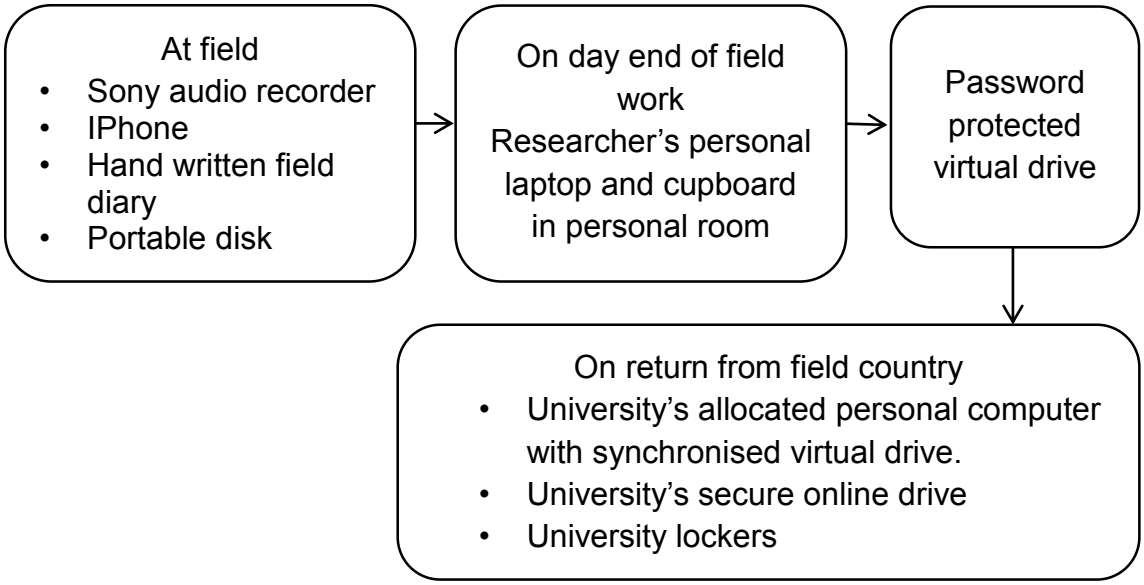


Figure 3-11 Data storage at several stages

### 3.13.7. **Participation incentive**

The participation of organisations and individuals remained voluntary throughout the field work. However, there were a few incentives for the participants, for which they were aware and consciously making efforts to avail it. These include (1) a copy of the thesis upon its completion, (2) a token gift of flavoured tea was given to the gatekeepers, (3) a hope for the quality research suggestions from a native researcher based on the high standards of the academic world, (4) free promotion for the participant institutes, the researchers, and their view points, (5) the biggest incentive for participants and - knowledge workers was to have an interested and patient listener, which served as the strength of the field work, and (6) the discussions also

provided reasonable talking therapy sessions for a deprived community facing several dilemmas.

### 3.14. **Data analysis**

The data requires a framework of meaning to prove its worth (Spender and Scherer, 2007). Vohra (2014) describes how in qualitative research, data collection and analysis are not distinct steps. Tacit experience in the field, through subjective observations, is the beginning of the analysis (Mackey, Tan, Ignacio, Palham, Dawood, and Liaw, 2014). An understanding of the data starts during the overlap of data collection and data analysis phases (Bamford, 2008). The thought process is systematised through a research diary during the PhD. journey, specifically at the day's end of field work. This proved a healthy exercise, to develop an initial understanding and move on to the next field day with improvement.

Explicating the data analysis phase remained a challenge similar to Bamford's (2008) idea that the data analysis phase remains mystical. He specified from Miles and Huberman (1984), the 3 stages of data analysis as - data reduction, data display and conclusion drawing, which are all relevant to this study. Intensive back and forth movement over the stages was a challenge. He accounted on Easterby-Smith *et al*. (1991) data analysis stages: familiarization, reflection, conceptualisation, cataloguing concepts, re-coding, linking, and re-evaluation. There is no standard format for data analysis and a number of approaches may align to the number of researchers (Eisenhardt, 1989). Braun, Clarke and Terry (2014) described qualitative analysis as the discovery of a sculptor hidden in the marble. More precisely, it is a method centred on codes and themes allowing theoretical flexibility and analytical sophistication.

Reading the field notes and listening to the audio tapes became a habitual activity to address the on-going queries in the researcher's mind, in order to understand the context in light of the subject under study. The author's field notes are the commencing point of the qualitative analysis (Tuckett, 2005). Welsh (2002) reasoned that the analysis process begins by organising data, coding text, and breaking it into manageable chunks. Tuckett (2005) argued that a systematic management of the data was necessary for analytical thoroughness. Interpretative stories are formed by handling transcripts, using multiple lenses, including active listening, narrative processes, language, context, and moments (McCormack, 2000).

### 3.14.1. **Thematic analysis**

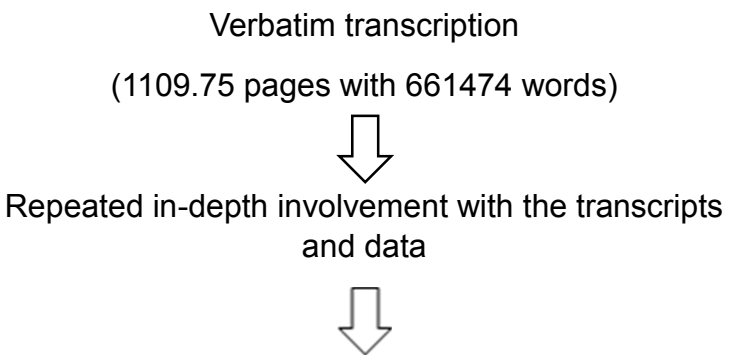


Figure 3-12 Thematic analysis

Most authors delineate transcription as the initial point for thematic analysis (Mackey *et al*., 2014) and the initial sense-making boosts the researcher's moral (Bamford, 2008). Thematic analysis is the search of themes relevant to the phenomenon under study, where a search is conducted by reading and re-reading (Vohra, 2014). Braun *et al*., (2014) defined it as an emergence of themes/patterned meanings from qualitative data. This study considers thematic analysis as a means to immerse with the qualitative data and feel the 'gist' of several perceptions and understandings

spread throughout the data, with a view to present a cohesive veracity. Figure 3.12 summarises the input for thematic analysis and the process.

#### 3.14.1.1. **Use of computer software (NVIVO) for qualitative analysis**

Payal and Debnath (2015) found from their systematic review that knowledge management and organisational performance studies occasionally consider the use of specialised software, although only a few had used SPSS, LISREL, EQS, SAS, AMOS and PLS Graph. Md Amin (2015) raised three questions to drive her decision for not using NVIVO, which are (1) whether themes emerging manually or with NVIVO will differ, (2) whether the process differs, (3) whether the process experience will differ. The main theoretical arguments against qualitative analysis software are a lack of analytical skills and a lack of meaning-making skills. Arguments in favour of such software are that it is time saving in analysing large data sets and provides better management of data. The key to balancing the arguments and counter arguments is to link it with deep philosophical thoughts. Using computerised software brings in a mechanistic behaviour of analysing the qualitative data, which is subjective in nature and the process could submerge that explanatory power. To ensure that an understanding of the functionality and possible benefits of NVIVO are clear to the researcher training for NVIVO was completed (c.f. Gibbs, 2011). This was ensured by installing the software package and handling sample data to receive real experience with its functionality. The use of computer assisted qualitative analysis software does not allow the researcher to fully immerse with the data and represents the method's homogeneity (Welsh, 2002). Furthermore, Welsh argued that the software is used more for organising data efficiently, rather than analysing it. The study already had appropriate data management and organisation in place, as explained under the data collation section. The efficiency of the data organisation was supported by the

researcher's software programming and development skills. On the basis of the above presented logic, queries and consultation with the supervisor, a conscious decision to not use any statistical package for qualitative data was made.

#### 3.14.1.2. **Ms Excel coding**

The decision for rejecting NVIVO for qualitative analysis did not decrease the intention of being systematic. An assumption that more systematic and organised work is more efficient was not over ruled. With that thought, Ms Excel was used to code the data (Taylor-Powell and Renner, 2003), develop a coding metric and framework. An Excel spreadsheet was formed with columns, file names, interview question numbers, text, theme labels, followed by sub-theme columns. A transcript to be analysed is copied to the text column and divided over several rows after reading and re-reading it into meaningful pieces. Breaking the data into smaller manageable chunks is challenging (Welsh, 2002). In the following column, relevant broader themes were mentioned. After repeating the process on 3-4 files, a basic idea was developed, along with greater speed, and codes and themes started to appear at two levels. A sample from the coding metric and coding framework is included in Appendix E and F. Following the procedure with 30 interactions of two organisations, it was realised that the process is consuming more time in mechanical tasks, rather than producing understanding. Moreover, the mechanical nature was hindering immersion with the text and coding considers the words, and misplaces the contextual understanding (McCormack, 2000). In an attempt to achieve theoretical understanding, the resulting codes were arranged in the form of a concept map. A sample concept map diagram is presented in Appendix H.

### 3.14.1.3. **Mix of inductive and deductive approach**

The themes originated from the analysis, like Vohra's (2014) study, used a dual approach for its thematic analysis, i.e. data driven inductive themes and prior deductive themes drawn from the research objectives (Fereday and Muir-Cochrane, 2006). This process lasted for several iterations, and was reflexive. The mix of an inductive and deductive approach for the thematic analysis is presented in figure 3.13 below

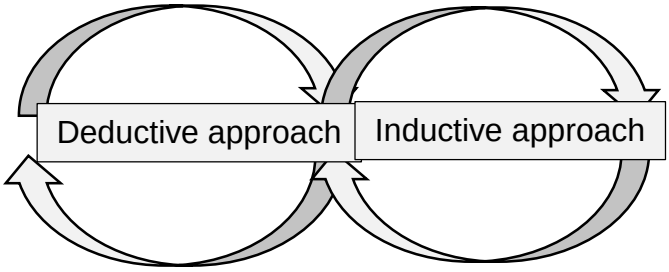


Figure 3-13 Inductive-deductive approaches for thematic analysis

The qualitative data analysis begins with the literature review, shaping the research questions (Tuckett, 2005). The approach for a thematic analysis is defined by the underpinning research questions and theoretical assumptions. The theoretical research question dealing with the relationship of the three constructs KM, OP and OS demanded for a deductive approach, whereas the conceptual question of the same relationship of the three constructs required digging deep into the data, hence followed an inductive approach, given that the RQ-1 to RQ-3 demand mainly for inductive enquiry. These three research questions prove the assumption of a lack of KM awareness, lack of formality of KM and definition of the KM enablers in the specified context.

### 3.14.1.4. **Manual thematic analysis**

A manual analysis allowed the researcher to dig deep in the data and read within the lines to conclude with a more feasible framework. Welsh (2002) argues that a thorough interrogation of data demands manual scrutiny. For the manual thematic analysis,

initially a colour coding scheme was applied to reduce the text of transcript according to the themes already listed from above process. This mainly resulted in four forms of text, as described in table 3.24 below

Table 3-24 Manual colour coding

| Form of text | Meaning |
|---|---|
| Strike through | Not related |
| Plain | Retained to understand the context |
| Yellow | Could be included later depending on the final shape of the analysis |
| Green | Falling under themes. |

The transcripts were read and re-read until the saturation and the process of coding was repeated. In parallel to the colour coding process, a case study formation started taking shape. Before the colour coding completion, an improved case analysis become dominant and the colour coding turned into a more traditional form. Until this point, all 8 case studies were developed up to an average of 40 pages along understandings, reflections and representative thematic quotes. Although, the text data was reduced by half, this was still much more than the thesis length limit. The initial desire to present individual case studies was no longer suitable, rather a comprehensive combined analysis with more selected quotes was required. The traditional coding method turned into the dominant process and the individual case presentations were hindered. The arrangement of developed themes originated in the findings and discussion chapters, along with the required explanation and evidence (Taylor-Powell and Renner, 2003). Since then, the colour coding process undergoes suppression. Searching the specified evidence under the themes from the transcript files and the case files resulted in the selection of to-the-point quotes. Reading and re-reading the findings and discussion chapters continued to rearrange and refine the quotes under several themes (Taylor-

Powell and Renner, 2003). Each phase of reading brought forth better categorisation of themes and sub-themes, along refined and shorter quotes.

### 3.14.2. **Data presentation**

Data organisation impacts the analysis processes, which results in theory and write-up (Tuckett, 2005). Research of themes and traditional coding procedures pose a challenge for transcript handling in terms of separating the participant's words from the context (McCormack, 2000). A variation of indicators, across cases and difficulty in collapsing qualitative data, leads many researchers to summarise and tabulate the evidence (Eisenhardt, 1989). Findings can be presented diagrammatically, where gaps could be easily identified and suggestions for future study could be made (Taylor-Powell and Renner, 200). The study has used tabulation and diagrams to present the summary of concept under discussion in the participant organisations. The specific culture, local terminologies of each participant organisations, and the complex phenomenon under study, presented a range of synonyms, making the retrieval of information rather difficult (Welsh, 2002).

#### 3.14.2.1. **Quotations anonymity and traceability**

Several representative quotations from the interactions are used while presenting the findings and discussing the phenomena. All the quotations are synchronised to follow organisational anonymity, by replacing the organisation name with 'the think tank' or similar terminology. Quotations are anonymised for individual identity by replacing any names with words such as I, me, they, colleagues, senior, boss, etc. Any other identifiers are also excluded from the statements. Each interaction was assigned a unique code, which is used along the quotations for traceability. The formation of the code follows the following formula.

Allocated case number for organisation + number for the individual + number of interaction with that individual + type of interaction

This provided with numerous codes, for example, (1.2.3.1). Where there were multiple individuals involved in the discussion, they were coded with the number of both individuals, separated with a hyphen, for example, (5.(7)-8.1.1). Where, parenthesis around 7 means that the words presented belong to the individual coded 7, and individual 8 was also part of the discussion.

### 3.15. **Ethical care**

Social science research is subject to ethical review, but mostly researchers are not considerate, since the risks are rare (Nicholls, Brehaut and Saginur, 2012). The determination and flexibility of methods choice needs to be inclined with ethical guidelines, for which the research is bound (Buchanan and Bryman, 2007). An outright ethics approval was obtained from the university's Business School's Ethics Committee before the field work. Table 3.25 presents the code of ethics used for the research.

Buchanan and Bryman (2007) criticised how the growing concern for ethics in organisational studies plays a major role in making choices of methods, considering the relevant ethical committees and restrictions in regards to the principle of the right to withdraw, informed consent, anonymity, which all may contaminate the research. A cautious approach towards ethics, considering the specified culture of the context, gave the research the advantage of being as flexible as possible, and much less contaminated.

Table 3-25 Code of ethics

| Principle of ethical research | Description of practice |
|---|---|
| No harm to participant | The field work was conducted in routine organisational territories, with all safety and security measures, without any extra concern of possible harm. The methods of interview, observations and document analysis only involve the researcher and organisational members' interaction in a predictable setting with no explicit possible harm. During conversations, the researcher ensured not to state anything that created bias towards an individual, respecting diversity and individuality. |
| Dignity | The dignity of the research participants is utmost respected and it was ensured that there would be no discomfort/anxiety during the data collection. Prior appointments were taken and the choice of venue and time selection is given to the participants. |
| Informed consent | Written consent was taken from the organisations for research participation and individual consent from each interviewee was taken verbally. The research title, objective and scope of the interview are briefed to each interviewee at start of each interview. |
| Privacy | Any confidential data shared has been kept confidential by the researcher. |
| Anonymity | Although the anonymity by the organisation was neither required nor demanded, rather the listing was encouraged. A few interviewees about specific points/information's anonymity, which is addressed by detaching the information from interviewee's identity for presentation. |
| Confidentiality | All data collected including the audio records, pictures, field notes are only accessible by the researcher and kept on the researcher's computers, password protected online accounts and university's secure online storage. |
| Deception | Clarity of the scope was provided at start of the interview to each interviewee, and the researcher ensured to keep the interview within its scope, or again provide the directive explanations. |
| Affiliation | The researcher's affiliation with the University of Huddersfield as a PhD candidate was informed to all participants. University's business cards and introduction with the interviewees are also used for the purpose. |
| Honesty and transparency | It has been ensured that the essence provided by the participants is preserved and presented with minimum assumptions. Transparency has also been ensured by procedural care during data collation and analysis. |
| Misrepresentation | Quality measures to ensure objectivity, validity and credibility were adopted. |

### 3.15.1. **Organisational anonymity**

Organisational anonymity was not a requisite, and the names of case organisations are revealed in the study. Care was taken, as suggested by Clark (2006) while presenting and discussing the findings, that no specific point would reveal the organisational identity, to avoid prestige issues. The direct identifier involved was name of the organisation, and rather than presenting the actual organisational name, pseudo names were used, e.g., X institute, '(a think tank)' or statements like 'one of the sample organisations'.

### 3.15.2. **Interviewee's anonymity**

Interviewee anonymity was a real concern and the researcher was highly obliged to keep specific remarks confidential. Wherever quotations were required, they were made anonymous by the use of coding system specifically designed for the present research. Direct identifiers for individuals are their names and designations in an un-anonymised case. Such anonymity was achieved by using general statements, such as 'one of the employees said that...' etc. Such techniques remain advantageous if any comments by the interview might jeopardise his/her organisational position and/or require them to keep anonymous from other members of the same organisation. As argued by Nicholls *et al*. (2012) anonymity still leads to identification by locals in a close community and results in confidentiality issues. There will be minimum personal data collection in the present research, and so, sensitivity concerns are less in regards of data protection acts. Many of the personnel involved in the interviews are public figures known for their research, representing their research and organisations in media and on key positions of the public organisations, leaving any anonymity issues behind. Any further need to make some specific data anonymous was observed by

generalising it and detaching it from its context. All the above will be handled with care, keeping in mind the concerns raised by Buchanan and Bryman (2007), that anonymity will not contaminate the research. Wherever the data is made anonymous, it was notified, as no need for blanket anonymisation was felt. Rather, the participants were happy to provide their voice, in general. It is worth clarifying that the study does not cover the political dimension or the role of the TTs organisations in regards of politics, rather it deals with the organisational entities from a management perspective, so the concern for political opinions/attachments is not relevant.

### 3.15.3. **Harm**

There was minimum possibility of any harm from the research. Interviews were conducted in the offices of social science research organisations involving human interaction, but with minimal possible resulting hazards (c.f. Nicholls *et al*., 2012). Interviews were simple, subjective and in layman language, mainly concerned with questions such as 'what does the organisations do? How? What they need to do that? What are the results and how do they measure the results?' Interviews did not involve any personal discussions, nor did they deal with their employment. Interviews were not of a sensitive nature and there were minimal chances of any discomfort from the interview. Still, the interviewer remained conscious not to create any discomfort through words or gestures. Participation was voluntary and participants had the option to withdraw at any time if they were not comfortable.

There were a few positive impacts for the participant organisations and their members, through self-marketing, self-assessments, the opportunity to express and share their views, attaining sense of worth and hope for their research suggestions.

Harm to a reputation organisational, as well as an individual, will remain under consideration and was addressed by achieving the required anonymity. While chances of emotional harm to interviewee's were present, the researcher remained conscious to handle such cases tactfully through making the data anonymous.

### 3.15.4. **Section summary**

No major issues with regards to ethics were expected, but there were a few minor things that, remained in consideration. Secure and safe data storage was an issue, which was ensured by triangulating the storage processes and devices. If any interviewee/organisation shared any confidential details, they were kept confidential, and if it was required, a confidentiality consent had been signed. Wherever anonymity was required or demanded, it was ensured through appropriate coding. The participants/interviewees are knowledge workers and have their say/individuality with little pressure from their employer, leading to the minimal possibility that they will be taking part in the research due to employers pressure. Still, the researcher made sure it was explained to each interviewee that their participation is voluntary.

There was minimum possibility of conflict of interest, since the researcher's aim is to find ways in which the organisational performance of these organisations can be enhanced, while the organisations are also striving for the same and the individuals/participants also want to improve their work, as well as their organisation.

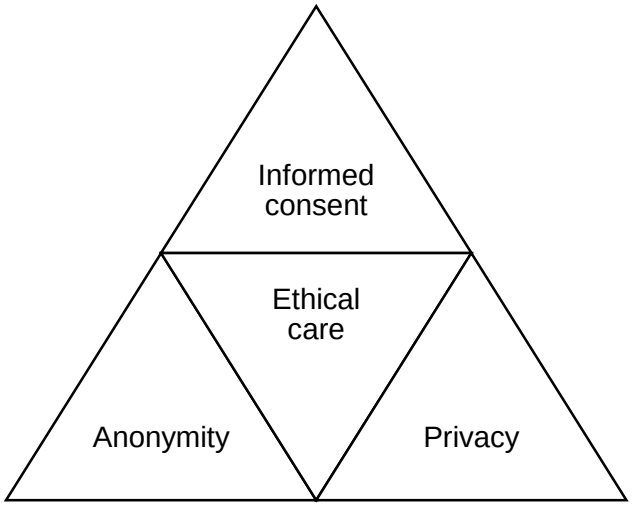


Figure 3-14 Ethical care

## 3.16. **Quality criteria**

Moving away from positivism also raises the question of replication, and the result could be relative, denying the possibility of objective truth (Tsnag and kwan, 1999). The theory building process is constrained by the methodology if focused on validity, rather than usefulness (Bamford, 2008). Furthermore, Bamford maintained from the work of Eisenhardt (1991) that in qualitative theory building research, it is difficult for the researcher to hide poor quality work with impressive techniques. A concern for reliability and validity is raised due to a lack of detail about the process of carrying qualitative research (Welsh, 2002). The present study attempted to explain the methodological details in depth to present reliability and validity. The study has fixated on the need for quality by focusing on four dimensions: multiple cases, multiple data sources, multiple informants, and carefully developed data collection protocol. Triangulation increases the validity and is aligned to the intermediate philosophical approach (Holden and Lynch, 2004). Replication in social sciences can be performed by matching most conditions (Tsnag and Kwan, 1999). The summary is presented in figure 3.15 below.

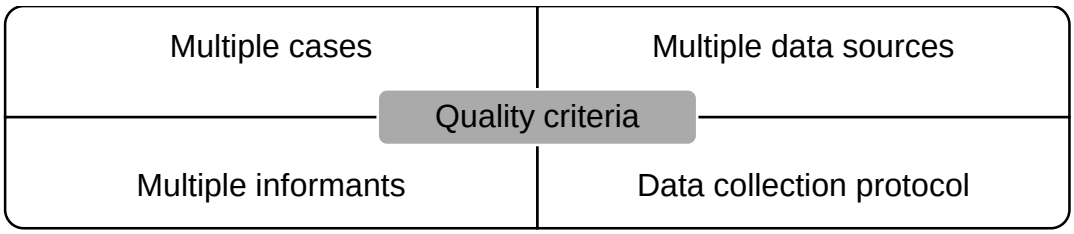


Figure 3-15 Quality criteria

The participation of multiple case organisations strengthened the study's empirical base. Human biasness for information processing may lead to premature/false conclusions, which may be avoided by cross-case analysis, which adds divergent views (Eisenhardt, 1989). A multiple case study approach was advocated by Bamford *et al*. (2015) on the basis of the dual aspects of theory development, as well as theory testing, along with capturing the complex natured topic. Initiating with case study theory building requires defining a broad focus through research questions, to reduce struggles related to voluminous data, specifying population and data type (Eisenhardt, 1989). To reach closure, two aspects need to be considered - when to stop adding cases and when to stop iterating between theory and data (Eisenhardt, 1989). Each methodology phase remained in the iterative loop until saturation was achieved, similar to her suggestion.

## 3.17. **Generalisability**

Replication and repetition of findings are less common in social sciences, relative to natural sciences (Tsnag and Kwan, 1999) raising the question of generalisability. On the one hand, the intention throughout the analysis process remained to gain insight into knowledge management in Pakistani think tanks, rather than to draw conclusions about the generalisability of findings. On the other hand, the conceptual model of KM drawn from the research is generalisable for any organisation handling knowledge, though more specifically generalisable for knowledge intensive organisations and

TT's. Discussing the general wider terms of KM, OP and OS, rather than any specified dimension of the complex constructs, has retained the generalisability of the study, and has proven helpful for interpretation.

A gap found in the systematic literature review of KM-OP studies is the lack of their generalisability due to a limited sample size (Payal and Debnath, 2015). The large sample size is an effort to reduce the gap and make the findings generalisable. Al-Fehaid (2015) argues that a more convincing argument for lack of generalisability is the difference of cultural context. The unique context of Pakistan should be considered in comparison to other contexts before considering the results in any other context.

### 3.18. **Researchers subjectivity**

Qualitative investigation explicitly includes explicitly the researcher's state mentioning biases, feelings and thoughts (Krauss, 2005). Throughout the research journey, the struggle of transferring understandings from mind to paper remain in the way (Klag and Langley, 2013). Only part of the understanding could be explicated and that remained the focus of the researcher's effort. Similar to the belief of Tsoukas (2005), practical and deeply familiar knowledge is difficult to describe. Furthermore, he argued that personal judgement is called upon to assess of the inescapable gap between the representation and the world encountered. The researcher's personal judgements, especially in squaring the qualitative data with the theoretical underpinnings, remained idiosyncratic. It is not practical for researchers to take neutral observations in the political systems of organisations (Buchanan and Bryman, 2007).

### 3.19. **Originality and limitations**

The critics claim that lack of creativity and novelty occur in replication, while originality has a high value in social sciences (Tsnag and Kwan, 1999). Unfortunately, most of

the research conducted in Pakistan lacks empirical support, and most of the research conducted about Pakistan in foreign countries lacks the flavour of originality. The present study has provided originality of context through presenting extensive field work. Presenting 8 case studies of Pakistani think tanks is the esteem of this research. A vast and enriched data set of 110 interviews and 85 discussions brings forth a robustness in the qualitative data. Being a single researcher with limited time and limited cases based upon qualitative subject understanding involving perception of the participants, all pose a limitation for the generalisability of the study. A cross sectional study in today's dynamic world, and more specifically in learning organisations, becomes quickly perishable. Organisational studies are comparatively less bothered about previous trends, ideas, and proof, than the previous research in the field, but considering these might be helpful in establishing contemporary choices (Buchanan and Bryman, 2007). Voluminous data and narrow idiosyncratic output were the limitations of the research, as reasoned by Eisenhardt (1989). McCormack (2000) considered Riessman's (1993) idea that it is easy to get drowned in the sea of interview transcripts. A high volume of interview transcripts and repetitive listening of the relevant audio had exposed the study to an easy trap of getting lost in the qualitative data analysis process. This has been avoided through supervisory reminders and gang charts to achieve the targets, yet the subjectivity of the analysis process could not be eliminated. The interpretative story formed through the multiple lenses of active listening, identifying narrative processes by the story teller, extent of attention paid to the language, acknowledging the context and identifying outlying happenings are subject to the adopted philosophical views. A manual thematic analysis has its own limitations in terms of time consumption and achieving maturity of thoughts, and

combining such a technique with concept maps and/or contents analysis has added to the evidence and presentation of the thesis.

## 3.20. **Chapter summary**

The study makes use of (1) critical realism to qualitative methodology at the philosophical and methodological level, (2) triangulated methods of interviews, observations and document analysis, (3) inductive logic and manual thematic coding at the analysis level, (4) presenting the findings from multiple organisational case studies, formulating the suggestions that can be adopted as practice for better performance.

Small policy research organisations are considered the unit of analysis for the study. Participant organisations have been carefully selected within their specified work domain and geographic area, considering the resource limitations of the study. Field work has been conducted during March-April 2014 in these 8 Pakistani think tanks (Social Sciences Policy Research Organisations). All 8 organisations are located in the capital city, Islamabad, and are of a similar nature. Tikekar (2004) found 'Islamabad as city of institutions' in her book, which she wrote during her field research in Islamabad in one of the sample set TTs and interacted with other TTs in Islamabad. Access to the participant organisations has been carefully organised in formal stages. Individual and organisational participation remained voluntary throughout the process, involving gatekeepers and a snowball technique. Data collection protocol has been carefully designed and used after testing. Field work has been followed by a successful outright ethics approval. Anonymity and confidentiality have a special consideration in the study, where a detailed code of ethics is also presented. Data collection is triangulated through interviews (semi-formal, semi-structure, multilingual),

observations and document analysis. The process resulted in 195 interactions with 142 personnel (102 Male and 40 females) in these organisations, with 84 hours of audio recording. Interactions amounted to 130 hours (approx.) in total. Data security and storage is ensured through a systematic method, using multiple tools. Data is transcribed in verbatim, and manual thematic coding concluded the themes.

# Chapter 4 : Findings

## 4.1. Introduction

Pakistani think tanks have little influence on policy making, but are doing their best to bridge the gap between the state and society. These small organisations have extensive knowledge resources and are purely knowledge intensive organisations. Pursuing research through publications and dialogue, these organisations are particularly knowledgeable research community of the nation. A relatively ignored sector of the country-TT's, struggle for funding, try to develop their identity and communicate with both state and society. An informal, less hierarchical and less departmentalised structure of these small organisations provide them with enough flexibility for their primary strategy of pursuing desk based research. The nature of knowledge work and the authority of a knowledge worker are taking these organisations far from management, control and measurement. This power of knowledge is developing their authority whilst keeping their independence, despite faced by funding and political limitations (Iqbal, 2015).

Small organisations of a developing country operate with a basic technological infrastructure and hardly any research management, information management or knowledge management tools are in use; no explicit KM program/system has been considered so far. Although, the defined KM system and related terminology is missing from the context, the phenomenon of KM exists. It is KM which is keeping their organisational strategy aligned with their organisational performance, in a continuous cycle of change. The three major enablers of KM in Pakistani think tanks are structural, human and relational capital. Among knowledge resources cultural norms and values, multilingual skills, and leadership are taking a leading position, whereas among KM enablers relational capital is most prominent.

Social sciences findings are context specific (Britton, 1983). This chapter presents the understandings developed from the field work of 8 Islamabad based Pakistani think tanks in reference to their knowledge management. The chapter first sets the background and discusses what Pakistani TTs are. This is followed by the theme of KM awareness, and an explanation of what would be considered as KM in the defined context (RQ-1). The subsequent section will take the findings further, distinguishing between the formality levels of KM in Pakistani TTs (RQ-2). The following section will present a detailed analysis of KM enablers in Pakistani think tank organisations (RQ-3). This is followed by the explanation of found relationships of knowledge management, organisational strategy and organisational performance in these organisations (RQ-4). At the end, a critical summary of findings are briefly presented.

## 4.2. **Background**

Before going into the details of the findings, it is considered important to share the experience of the researcher's intervention in the participant think tanks and interaction with the interviewees. The organisations are research intensive, in high interaction with communication media, and are familiar with the visitors who have intention of research and interviews. A privilege for the research is that the researcher was respected, being a young Pakistani female coming from the UK to pursue research on Pakistani TTs. Simultaneously, a concern in the current political and security scenario of the country, that individuals conducting interviews, and having access to the organisations, are genuine researchers. This concern was reduced initially by making formal official requests and contact with the concerned organisations and personnel. Secondly, the organisations that accepted to participate were provided the details and security clearance of the researcher and her

background. Thirdly, in direct interaction with the researcher, participants first analysed, gained confidence and then shared their knowledge. Another favourable point was that most of the interviewees were knowledge workers with their say and authority. They had experience of giving interviews to researchers and the media, were comfortable expressing their point of view, and were less worried about the person in front, and were interested to disseminate their stance. There were interviewees who wished to be quoted without any anonymity, whilst a few has not allowed audio recording, generally due to their position.

### 4.2.1. **Researchers experience at a think tank**

The researcher herself has more than 4 years' experience at an Islamabad based think tank, serving on strategic managerial posts. This experience has provided motivation and insight for the research and developed familiarity with the Pakistan's TT industry. That rapport and understanding guided the researcher throughout the project-more specifically, in defining interaction with the population, the participant think tanks and through developing the findings.

### 4.2.2. **Participant think tanks**

The findings are based on field work conducted during March-April 2014 at Islamabad based think tanks. The participant organisations are listed in table 4.1. Among the 8 think tanks, 4 are attached to universities, 3 are semi-governmental, 2 are attached to the armed forces and 2 are registered as NGOs. All the participant think tanks are non-profit, small, knowledge intensive and are social sciences policy research organisations.

Table 4-1 Participant organisations

| Islamabad based think tanks | Affiliations |
|---|---|
| Centre for Research and Security Studies (CRSS) | Founded with foreign affiliation with a Germany institute, Heinrich Boell Stiftung, having the status of Trust/NGO. |
| Centre of International Peace and Security (CIPS) | Attached to the National University of Science and Technology (NUST), Islamabad |
| Institute of Policy Studies, Islamabad (IPS) | Autonomous private organisation registered under societies Act 1860, certified by Pakistan Centre for Philanthropy, having tax exempt status. |
| Institute of Regional Studies (IRS) | Previously was autonomous body with a defined governmental budget. Currently attached to the ministry of Information. |
| Institute of Strategic studies Islamabad (ISSI) | Registered under societies Act<br>Attached to the Ministry of Foreign affairs. Also have affiliation with ministry of foreign affairs. |
| Institute of Strategic Studies, Research and Analysis (ISSRA) | Attached with National Defence University (NDU), Islamabad |
| Islamic Research Institute (IRI) | Formed as an independent organisation as a result of constitutional provision served the purpose of forming the nation's ideology, remained attached to the ministry of Law, ministry of education and ministry of religious affairs. Had affiliation with Quaid-i-Azam university. International Islamic University came as a product of the institute, but later due to governmental ignorance towards the institute resulted in a degraded position. Currently associated with the International Islamic University, Islamabad (IIUI) as its sub-body. |
| Pakistan institute of development economic (PIDE) | Have approved status as a small university.<br>Was affiliated and located with Quaid-i-Azam University (QAU), Islamabad.<br>Attached to the Ministry of Planning Commission.<br>Had affiliations and projects with ministry of Finance, ministry of trade and commerce etc. |

### 4.2.3. **Field work**

A whole working week was spent in each participant organisation, conducting interviews, having discussions, attending meetings, seminars and conferences, making observations and collecting documents. A summary of the field work interactions is presented in table 4.2 below.

Table 4-2 Summary of field work of interactions

| Think tanks | Interviews (more formal) | Discussions (less formal) | Phone interviews | Conferences/ seminars | Organisational meetings | Grand total |
|---|---|---|---|---|---|---|
| CIPS | 4 | 1 | | | | 5 |
| CRSS | 11 | 4 | 3 | | 1 | 19 |
| IPS | 17 | 10 | | | | 27 |
| IRI | 12 | 16 | 1 | 1 | 1 | 31 |
| IRS | 17 | 6 | | | | 23 |
| ISSI | 14 | 12 | | 2 | | 28 |
| ISSRA | 20 | 10 | | 1 | | 31 |
| PIDE | 19 | 11 | | 1 | | 31 |
| Grand total | 114 | 70 | 4 | 5 | 2 | 195 |

Among interactions, discussions and interviews were conducted by the researcher, whereas meetings and conferences were conducted by the organisation where the researcher was only a participant (further detailed in table 4.3 nature of interaction).

All the data was collected through pre-planned field work using pre-defined protocols. Three main types of protocols defined were interview protocol, observation protocol and document analysis protocol. The protocols were carefully designed mainly in the following phases. (1) The guide was initially formed using literature, mainly from the study of Darroch (2003), (2) which was discussed with supervisory team and simplified. (3) With increased understanding of literature and context to be studied it is later converted into a version using laymen language. (4) The interview protocol was reviewed by 4 peers and pilot tested, before going to the field. (5) After a few initial interviews, the protocol was again analysed for suitability and perfection, and the required revisions were made.

Table 4-3 Nature of interaction

| Interaction type | Nature of the interaction |
|---|---|
| Interviews | Conducted by the researcher, based on a predefined interview protocol and remained formal, mainly involving the interviewee's holding a senior position with extensive experience and a high level of qualification. The interviews remained one-to-one. The interviews are audio recorded, wherever permitted. |
| Discussions | Conducted by the researcher using the same interview protocol, but in relatively less formal manner, involving mid or early career researchers or personnel holding less authoritative and/or administrative jobs. The discussions had either one or multiple participants. The discussions are audio recorded wherever was convenient. |
| Phone interview | Phone interviews are usually with distant participants, either working at a far away site or not available for face-to-face interview. These are relatively short duration conversations conducted by the researcher based on the interview protocol and remained one-to-one without any intervention of audio recording. |
| Conferences/ seminars | Conferences/seminars organised by the participant organisation during the duration of field work, for which the researcher was authorised to participate. It is mainly followed by the observation protocol. The networking sessions had opportunity of general discussion. This helped the researcher to understand the culture and relevant debates. The researcher had the opportunity of participating in the question/answer or discussion rounds. |
| Organisational meetings | The meetings were conducted by the organisational members on their predefined agenda. The researcher had limited participation, only when asked for her opinion/input. Mainly observation protocol was utilised with limited permission for audio recording. |

Ethics approval was gained from the university's ethic committee before conducting the field work. Formal letters were sent out to the 13 think tanks in Islamabad,

Pakistan. Several contacts were made with the TTs, who provided consent, to plan for the field work. Finally, field work was conducted with 8 think tanks with an agreement of participation in the research, and visitation approval. A liaison was formally established, mainly through three kinds of personnel: an authoritative individual, an official gatekeeper and a friendly gatekeeper.

In each think tank, all the staff members (and sometimes major available stakeholders) were considered a potential interviewee, and an attempt was made to arrange an appointment. Approx. 5% staff members were not available/located elsewhere, for the whole week of visit and approx. 1-2% did not participated mainly due to time limitations. There was 10% potential participation, where there was reluctance for formal participation; they were not comfortable with the interviewer taking notes/recording audio. The reluctance was condensed to 5-6% after the conversation started, having confidence on the researcher and they allowed recordings. The participant's demographic information was summarised in table 4.4.

Table 4-4 Participants' demographic information

| | Researcher | Admin staff | Female | Male | Foreign qualified | Foreign exposure |
|---|---|---|---|---|---|---|
| | 86 | 56 | 40 | 102 | 27 | 63 |
| Education | PhDs | MPhil | Masters | Graduates | College pass outs | School pass outs |
| | 21 | 43 | 52 | 10 | 7 | 7 |
| Service (years) | 30+ | 20+ | 10+ | 5+ | 1+ | less |
| | 18 | 21 | 14 | 34 | 37 | 18 |

Field work interactions are dominated by the interviews which are semi-formal, semi-structured and multi-lingual, ranging from 10 minutes, up to 4 hours. The second most prominent source is discussion, which remained little less formal and less structured

in relation to the interviews, and generally lasted from 5 minutes, up to 2 hours. This resulted in long transcripts and recorded interactions resulting in 629,595 words. Interactions which are not recorded resulted in 21,645 words, and self-recordings including observations, resulted in 10,234 words. The findings emerged from the understanding developed during the field work, listening to the recordings, reviewing the field notes, and reading and re-reading of the transcripts. Some of the organisational documents were mainly the institute's websites, newsletters, publications lists, visitors' book etc. were used as the supporting evidence. Multiple cases, multiple informants and multiple data sources bring quality to the data.

### 4.2.4. **Qualitative data analysis**

All transcripts were synchronised with the field notes and shaped into a homogeneous format to authenticate the process of analysis as suggested by Halcomb and Davidson (2006). The findings emerged from the qualitative data collected during the field work described above. Manual thematic analysis was used to develop an understanding of the phenomenon under study in the case organisations. To ensure a robust handling of the transcripts, there was a trial of several methods, for example, concept maps, line coding in excel, colour coding etc., and finally the traditional thematic method of gathering quotes under themes and sub-themes was applied. To support the analysis, anonymised interview quotes are included in the chapter. Following flow chart summarises the process of analysis reaching the findings.

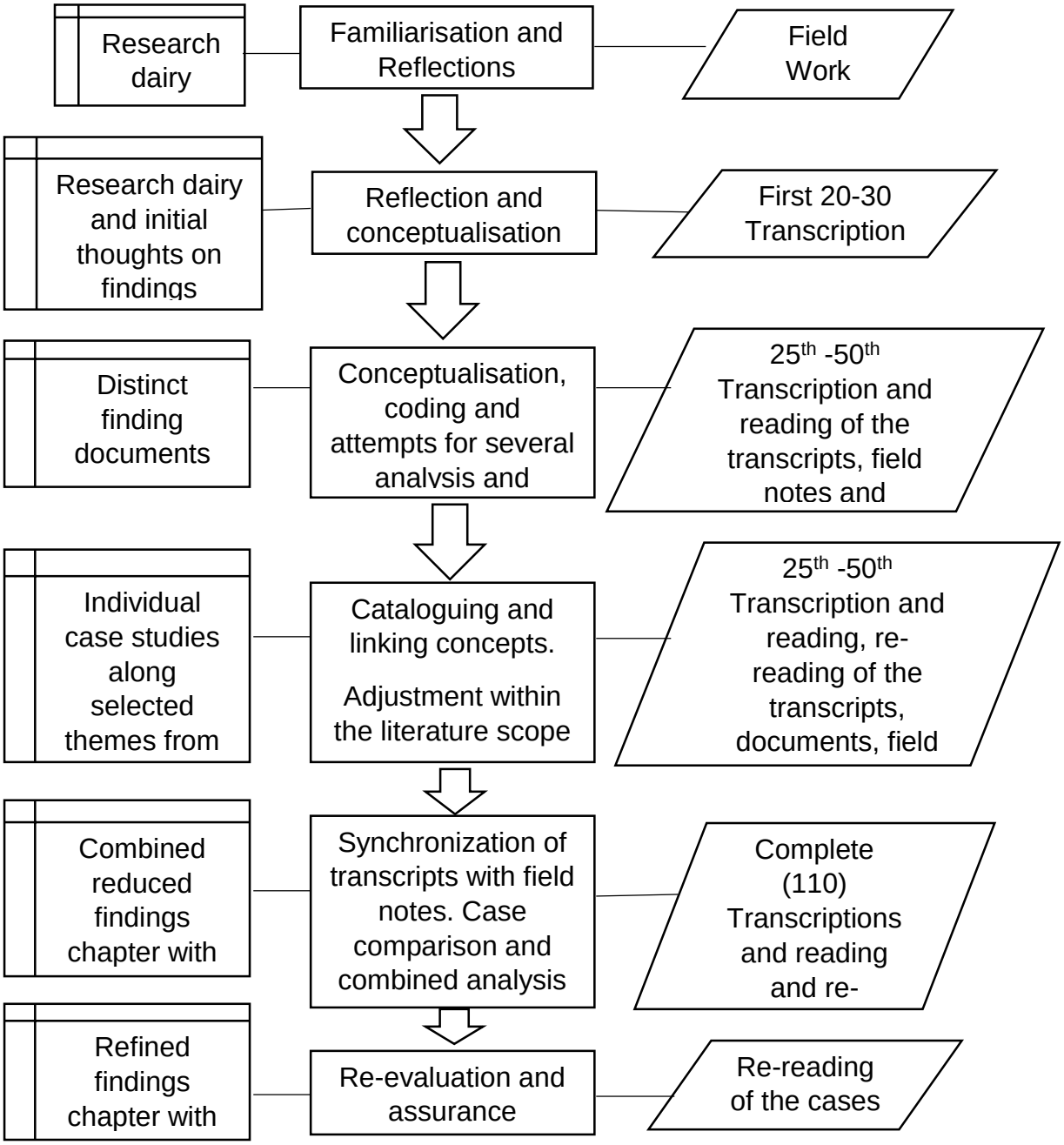


Figure 4-2 Process of analysis to reach the findings

The understanding that developed during the field work served as the foundation for the findings, which continued developing through the intensive process of transcription and repeated listening of the audio files. The resulting text appears to be expanding at the initial stages in an effort to explain, but later with experience, enhanced expertise and increased understanding, representative codes and themes were developed. With

the realisation of a required in-depth analysis, the codes started to converge into themes and sub-themes. Throughout the process of analysis, the researcher's involvement with the audio files, transcripts, field notes and research diaries, the researcher continued refining and linking the robust web of themes, sub-themes and codes. It was mandatory to present the themes extracted purely from the empirical findings first, as presented in section 4.3 to 4.5, to understand the unit of analysis i.e. Pakistani think tanks, which relates to their knowledge intensive nature, and could lead to their knowledge management. Whereas, sections 4.6 and 4.7 borrowed the main themes from the literature, to remain within the scope of the research, whereas the sub-themes are the dimensions grouped from the empirical findings.

## 4.3. **Pakistani think tanks**

Pakistani think tanks started developing right after the countries formation in 1947 (Central Intelligence Agency, 2016), though it took some time to gain a little position in the challenged environment. The development of Pakistan's first constitution laid the foundation for think tanks, as shared by senior researchers:

> "*(A think tank) was proposed in the constitution of 1956*" (1.11.1.1)
>
> "*In the 1956s constitution, there was a provision that there would be a central institute of Islamic research*" (1.17.1.1)

A scarcity of material resources remained the fate of the country and the organisations (Naseem and Amjad, 2008), and an unfortunate human capital loss (knowledgeable leaders) over the successive years, left the country in a dangling state (CSS Forum, 2009). Previously, the organisations had valuable resources-high calibre scholars and researchers, but that started diminishing and so did knowledge culture and thus, the role of knowledge intensive organisations. A retired head of a think tank mentioned

*"…the team before that time was either forced to leave or they left by themselves…at that time, 35- 40 scholars were there"* (1.12.1.1)

In the recent era, the need is realised and growth of TTs has been observed (McGann, 2016). The current state of Pakistani TTs is poor, considering the state is in crisis, the bad economy, political situation and certain other socio-natural factors (CIA, 2016). Regardless, of a TTs attachment with governmental body or is independent, it struggles to gain funding. More serious is the fact that they put little value on precious resource-knowledge they have. Silos of knowledge resources, both explicit and tacit remain there unnoticed, and human capital is not considered capital. Whether they are aware or not, valuing it or not, the resource is there, and they are managing it; it is the invisible factor making their performance. Intangible capital of cultural norms and values, multiple language skills, knowledgeable leadership and national spirit are adding to their performance.

### 4.3.1. **Institutional profile**

Pakistani think tanks fall under the categories of governmental, semi-governmental, non-governmental, non-profit, university-based, political party-based and private setups. Some of them are registered under the Societies Act (Societies Act 1860 (Act XXI of 1860)) and are tax exempted, with an evaluation by Pakistan's Centre of Philanthropy against NPOs good practices. Governmental TT's, work under direct control of the government and follow the same setup, which has not proven to be efficient. Semi-governmental TTs retain their individuality but remain dependent on a governmental budget and hardly receive any consideration due to a weak governmental setup. University-based TTs hardly retain their individuality as an organisation, and are not considered distinct from the other sub-bodies and the

university in general. Thus, their strategy, performance and management remain closely knitted. Political party based TTs have their scope limited to the parties manifesto, and hardly flourished in Pakistan due to weak political culture. Most of these categories of TTs are non-profit in nature, and don't exist in a nourishing environment. Besides these categories, another kind of think tanks, which is relatively independent, are in the private sector and has no direct affiliations. A young male researcher said that:

> "*...private think tanks depend on funding from a few single/sources and a single person manages it."* (3.23.1.1)

Table 4-5 Institutional profile

| Institute | Established | Army affiliation/Civilian | Nature of Business |
|---|---|---|---|
| CIPS | 1 March 2013 | Army affiliation | University affiliation |
| CRSS | 2008 | Civilian | NGO |
| IPS | May 1979 | Civilian | NGO/Trust |
| IRI | 1962 | Civilian | University affiliation |
| IRS | March 1982 | Civilian | Ministry affiliation |
| ISSI | 1973 | Civilian | Ministry affiliation |
| ISSRA | 2007 | Army affiliation | University and Ministry affiliation |
| PIDE | 1957 | Civilian | University and Ministry affiliation |

Source: observations, Interviews and institutional websites

Table 4.5 presents the year since the participant institutes were developed, along their institutional affiliations and nature of their business. The oldest of the participant think tanks is PIDE, developed in 1957, and is probably among the pioneer TTs of the country. The sample includes a range of TTs from 54 year old to 2 year old organisations. These include organisations with military as well as civilian affiliation. Another distinction is whether the organisation is of academic nature, i.e. University affiliated/semi-governmental/ministry affiliated. This difference also defines their funding channels.

Think tank organisations are mostly formed as non-profit organisations, and are clearly distinct from for-profit, corporations, multinationals, or private limited companies. The organisations with their nature of NGO's/trust bring special characteristics, motives, affiliations, aims and enthusiasm. As long as these key forces persist in the institutes, the success is ensured.

In a conference, attended at a sample think tank during field work it was found that Pakistan is among those countries that have a good number of civil society organisations, (Farooq, 2014) but a few TT's. Defining a think tank in the world's literature is itself a question for research (Perez, 2014). Defining a TT in the Pakistani context could add to the critical nature of the relevant literature. According to a senior researcher who has some research interest about think tank organisations:

> "…*there are many institutions in Islamabad where just one person and just, located in his house and there is nothing but he is organising conferences and seminars, and the reason he is trying to get a collaboration is trying to get money for his institution…I don't consider them as a proper TT, so there are proper and improper think tanks also….yes proper (think tank)…(has a) building, it has funding procedures…and regular researchers are working, and there is DG, chairman, ministry is behind, so it is holding regular seminars conferences it's not begging for funding to anybody,"* (3.14.1.1)

### 4.3.2. **Research focus of participant think tanks**

The specific research focus of each participant institute is shown in the table 4.6.

Table 4-6 Research focus of participant institutes

| Institute | Research focus |
|---|---|
| CIPS | Peace and conflict studies, Peace keeping. |
| CRSS | Democracy, Governance, Rule of Law, Accountability, Security, Energy, Media Advocacy, Counter-radicalisation, Regional Conflicts, Freedom of Media and Expression, and Human Rights. |
| IPS | Pakistan affairs (Economy, education, Politics, Society and culture, Security and foreign policy), International Relations (Pakistan and its neighbours, The Muslim world, Global issues and politics, globalisation), Faith and Society (Islamic thoughts, Islam and west, Madrassah Education) |
| IRI | Quranic Studies, Hadith and Sunnah, Fiqh and Law, Islamic Thought, contemporary Muslim Ummah. |
| IRS | South Asia, Southwest Asia (Iran, Afghanistan and the Gulf), China, Central Asia, Indian Ocean region, foreign and internal affairs, economy and industry, science and technology, socio-cultural and security related issues |
| ISSI | Afghanistan/Central Asia, China, Economic and Social Issues, India, Iran, Middle East, Nuclear Issues, South Asia, Terrorism/Militancy, United states. |
| ISSRA | Strategic studies, defence studies, Internal studies, Regional studies, global studies, |
| PIDE | Public policy/governance, Macroeconomics and growth, Trade and industry, Agriculture and Environment, Population, Poverty and labour market dynamics, Project evaluation and training, applied econometrics, |

Source: Institutes websites

A senior researcher discussed the choice of research focus and explained how different TTs in Pakistan and within the organisations-different departments and individuals, choose their research agenda. A perception behind, remain to support policy makers by providing technical validity.

*"There was a general perception that most of the policy makers, while they are involved in policy making,…they have cursory knowledge. The idea was to create an in-depth understanding by creating a database of the issues concerning Pakistan among the policy makers, and also with-in the academic community."* (3.8.1.1)

*A young female researcher described how,*

*"the agenda; … might be few, urgent issues, and I am strongly against that you pick 110 issue No, not more than 5-7, even 7 is quite lot, 5, 5 issues on each issue at least 5 people would be working"* (7.4.3.1)

Along above analysis some further characteristics shaping these organisation's nature and work are presented below.

### 4.3.3. **Nature and work of Pakistani think tanks**

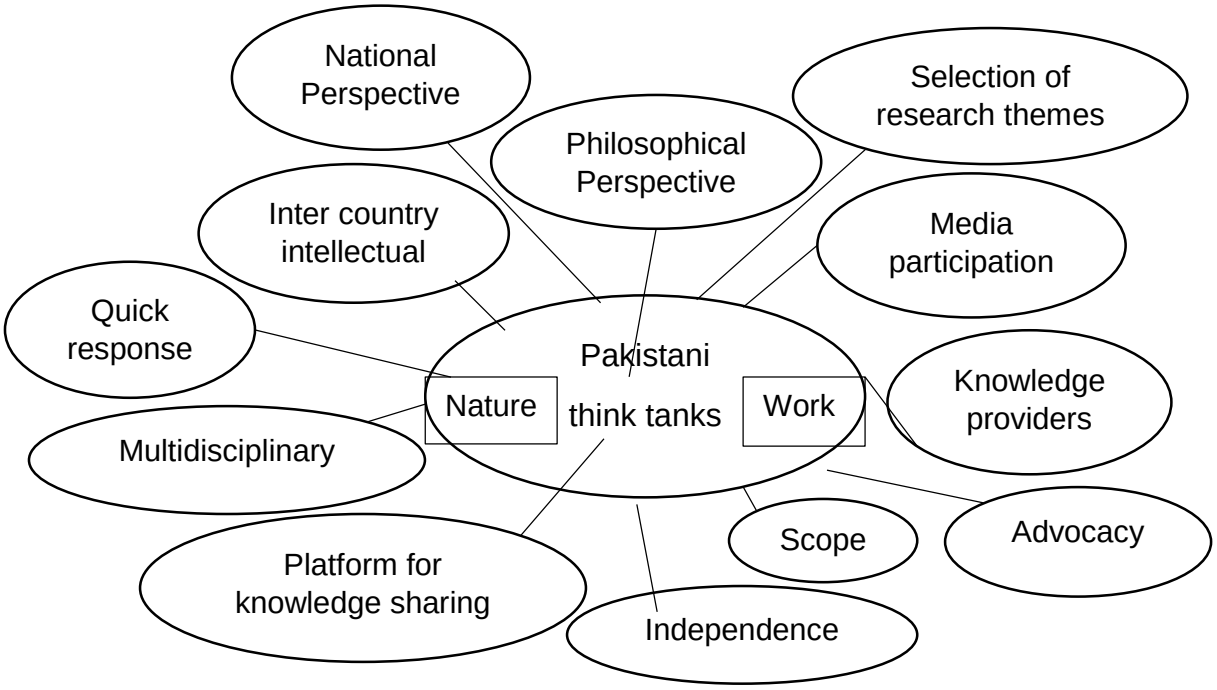


Figure 4-3 Nature and work of Pakistani think tanks

Some of the features of Pakistani think tanks in relation to their nature and work are illustrated below, with brief example quotations. Diagram 4-2 presents the pictorial view of key features of Pakistani think tanks in relation to their nature and work.

#### 4.3.3.1. **Selection of research themes**

A think tank gathers knowledge on issues related to their scope, and generates an analysis on the issues to support future developments. For example, a senior management director argued this as below.

> "*What a think tank does is that it take society's, Pakistan's, international, regional issues, take upon itself to dilate upon the issues or somebody tells that you are doing so much so also work on that issue, or else there are international TT's, international institutions, they say that we want to collaborate..."* (4.1.1.1)

Another director explained:

> "*At the beginning of year, an annual program is prepared. Each and every activity is planned, by taking burning issues and assigned tasks to each unit, that these conferences will be organised, this and that document will be prepared, researcher's utilisation, resources were dedicated for tasks."* (4.18.1.1)

#### 4.3.3.2. **Scope of Pakistani think tanks**

Pakistan's think tanks could play a role in eradicating rumours and sharing authentic knowledge. A knowledge intensive organisation that handles knowledge may also be at a critical level, but a TT is a level higher, due to their aim to impact the state policies and society's status. A senior admin manager confirmed this as below.

*"Responsibility increases when we attach the title of think tank with an organisation…"* (2.6.1.1)

An experienced executive explained this more thoroughly below.

"…*see, ideally any TTs role is, on the one side, to influence policy making, but on the other hand; better understanding of the policy at different levels; who the stakeholders are in the society, developing their understanding, to guide them towards a better agenda, mobilizing them, playing a role in opinion making, and going right at the grass roots awareness creation. This is all in the scope of a TT,…sometimes these tasks do not get completed at one time, but continuously these are present as part of a task*" (7.1.2.1).

However, some of the institutes initially had objectives to provide support to the government in policy making, where direct objectives vanished over time. A senior researcher stated that:

*"…issues raised in different organisations and ministries will be guided by (the think tank)…later, its objectives get shrinked to research…*" (1.11.1.1)

Pakistani think tanks have a bigger responsibility but have to define their scope as like any other organisation. The scope remains limited and in defining scope the considerations of Pakistani TTs were explicated by a senior executive as follows.

*"...they (TT's) are telling you to move in the direction…strengthen those muscles by which you should develop a cooperative mechanism, internally and externally, which makes you able to grow...smart National*

*Security Policy gives you a chance to grow...and this is the chief role of any TT in the world…"* (4.1.1.1)

#### 4.3.3.3. **Inter country intellectual link**

Think tank organisations are not only providing intellectual input to the decision maker, but are also building an intellectual link with other countries. An experienced interviewee revealed the following.

> *"...So think tank! What is it, basically a platform to convince a government; a mechanism of conveying intellectual feeling on various issues, and specifically, when in connection with other countries…then it is a way to ascertain your feelings to another country*." (4.1.1.1)

#### 4.3.3.4. **National Perspective**

These think tanks usually have the motive of national development. A head of the Asia Division, German think tank, was attending a participant organisations' conference, and put forth the following.

> "…*no matter TTs of whichever country, they work in a national perspective.…Like in the USA, TTs remain in a party perspective, but think tanks of Pakistan and Germany are more in national perspective.…knowledge management is not only a challenge for Pakistani TTs but also for German think tanks*." (3.2.1.2).

Think tanks with national obligations have to serve as a nation's representative, which includes gathering and presenting information about the nation. Pakistani TTs are relatively not so concerned about the acceptance of their policy suggestions, and would rather do their work, produce and share knowledge. A senior spokesperson of a participant institute described this below.

"*My work is to give policy input…Irrespective of whether its dividends are getting in or not…Because it is your obligation, when religion has said to get knowledge, it is an obligation for all males and females… Research is not done with the purpose that organisations have the obligation to follow it*." (4.1.1.1)

Similar to any other organisation, think tanks originate with the knowledgeable ideas of the founding members, and the same is the case for Pakistani TTs. Pakistani TTs are unique, due to their national spirit, along with the dominant element of 'religion'. A young promotions manager shared the following view.

"*Independent research, neutral research, whatever it says, and Pakistani perspective, we see it from our own angle, we have our own glasses to see*." (7.14.1.1)

The broader vision of Pakistani TTs is research; although, they conduct it at a national level, it has global value. A senior spokesperson explained this as follows.

*"...in the world, all research that had been done, has two purposes, actual is, what is its benefit to the world, and in the process who is doing it, will also get the benefit. See if I invented eyeglasses, for example, my purpose was to benefit the world, but in the process it gets my name, so I get the benefit as well. So, the purpose to start with is not that I will gain the benefit, the person who invented the aeroplane, the Wright Brothers; their purpose was not that all life will sit in aeroplane and nobody else would sit in it. Their purpose was to make it so that people can take benefit from it and so they can also start getting a benefit of it. What the big names are; Archimedes and Newton and Einstein and all like people,*

*whether only they gained benefit from their inventions, their research is for humanity. So, your research has to be for the public at large..."* (4.1.1.1)

#### 4.3.3.5. **Philosophical perspectives**

People's knowledge perspective can come from a religious framework or a secular mind-set, which has an impact on their research philosophies, methodology and the outcome. According to one researcher,

"*We have to create a fence between state, society and religion*." (3.1.1.2)

#### 4.3.3.6. **Multidisciplinary**

Pakistani think tanks, as policy research institutes, tend to be multidisciplinary and formulate their experience, research and policy suggestions by involving participants from various fields. A senior researcher has the following to say about his organisation's activities.

"…*we are engaging civil society. For example, we conduct seminars in which we call representatives from the policy and, legal community, and the media. We bring representatives together from 7-8 segments of the society and generate debate from it*." (2.1.1.2)

Another researcher stated:

"…*people from all fields are joining here, we have seen they are contributing better here…people of different approaches,…at the same time, they gain good learning*..." (8.1.1.1)

#### 4.3.3.7. **Game of ideas**

Knowledge – the game of ideas is played by these organisations as a founding director shared:

> *"...First of all, we create interest in our PhD students and all are having their own ideas in their mind or project…"* (8.2.1.1)

#### 4.3.3.8. **Information compilers**

Other than handling ideas, often, these organisations compile information. According to a young research assistant:

> "The *objectives of (TT name) are to compile the data and collect all the information of all the incidences that are happening in Pakistan over the past few years. Then we shape it into the form of reports…table formed information… everything in a summarised form, brief form so we can compare it from the past and future data to see where Pakistan stands now*." (2.8.1.1)

There is little consideration for the difference between knowledge and information, and thus, information management, research management, record management and knowledge management. A senior researcher said,

> "*Keep the difference of information and know-how in mind*" (7.10.1.2)

Another senior researcher described this as per below.

> "…*information is, it's for knowledge a stimulant…it is input as well as output,…in both cases what the knowledge is, we are using it as well as generating it.*" (7.7.2.1)

#### 4.3.3.9. **Quick response**

Along global developments, fast Asian developments (Asian development bank, 2015) and the strategic importance of the country, put extra responsibility on the relevant organisations. A head of an institution said the following

> *"…basically we are a research institute and the region we are in and the scope of our work, in that quite quick developments are happening, quickest developments are happening, so in these quickest developments, means quick response…*" (7.1.2.1)

Another senior managing director shared that

> *"…in fact think tank is one that thinks, react to certain situations, it feels, you know, it self carries out research on issues" (4.1.1.1)*

#### 4.3.3.10. **Media participation**

Presently, the trend is growing towards media participation, which generally includes newspaper articles, talk shows, and media coverage of their programs, and also book launching programs with a growing concern to enhance their social media presence and online activity. An executive director posited:

> "*Now an important factor is the media; it does the agenda setting."* (7.1.1.2).

A senior researcher also argued that

> *"...previously, the media was not that involved, and now they use our research findings to highlight and for their advocacy*" (5.4.1.1).

Furthermore, one member of senior management argued that

"*Our Facebook page likes are more than [name of another institute]. Although, we made our (Facebook page) quite later than them*" (7.3.1.2)

4.3.3.11. **Advocacy**

The participant think tanks-Pakistani social sciences policy research organisations are more academically oriented and are less concerned about advocacy. These organisations lack in providing a platform to communicate with policy actors. However, they have little hold on the quality of research and are more focussed on collaborations with non-state actors. A participant TT has advocacy as their objectives and the others rarely consider them as advocates of any specific groups, philosophies/ideas. It cannot be denied that the link of specific ideology goes deeper with individual perceptions with the care of differences between an insider's and an outsider's view. A senior project director argued this as below.

"*See benefit! We are basically doing advocacy; its media coverage is also done. We create awareness,…Our recommendations go to the government*" (2.1.2.1)

This infers that advocacy drives the link between these organisations and the policy circles, which are apparently missing. Where, advocacy is considered in conflict with research objectives. A head of the institution put forth that

"*Funding should not be for advocacy; funding should be for research. Funding for advocacy is poison for research*." (7.1.1.2)

In another interaction he explained that:

"…*research, obviously…its core function, but along research awareness, advocacy is and by itself, what's human development is*

*these are such allied things to which even if we focus then we could be doing our work in a better way*" (7.1.2.1)

A senior executive director and department head expressed his views as below

*"(Think tank name) is playing its role, but you cannot force anything. We can just write, and the role (think tank name) lacks on media…it's on in (think tank name) mandate, like many NGOs along research also play a role in changing people's view point....(think tank name) do not have that advocacy role, like a number of other organisations since we are also bit semi-government,*" (5.5.1.1)

4.3.3.12. **Independence**

A think tank attached to governmental body and assigned to give input to the government, they get funding. But a non-governmental TT scarcely has governmental funding raising question why do they provide input to the government. TTs attached to political parties, specified agenda, pressure groups, activists associations are another category-who entitle themselves as completely independent. They are considerate to work for society realizing their social responsibility. An additional category of university-based think tanks are more towards research utilisation and linking practice and academia. A senior researcher explained independence in the following way.

"A *think tank! Could never be ideal; what is said to be 'nonpartisan' and don't know what else…but, it's never like this, whoever does the funding, he/she holds the strings; they make the TT for his own aims and objectives"* (8.2.1.1)

An experienced stakeholder explained the reason behind the lack of institute's independence as follows.

> "*Well, the institute's independent research organisation position remained there...When the university was built in the 1980's, the institute become its constituent part…it is not independent, with an autonomous status....but has a measure of autonomy*" (1.16.1.1)

4.3.3.13. **Knowledge providers**

Providing knowledge to relevant government sectors is the ultimate goal of these organisations. They support policy making organisations by sharing a research-based view, information and by providing academic tools for policy making, in order to make the policy development process more informed. A young female researcher shared her experience as follows.

> *"…a publication last year was sent to the different embassies, parliaments, and to different senators and MNAs..."* (2.7.1.1)

A director stated

> *"…you can say that we give tools to the government, we give tools to organisations who want to work in these areas."* (1.3.2.1).

Furthermore, a founding director put forth the following view.

> "…*we wish that these reports gave us first-hand information for how they operate there, and whatever information they gain, how we can translate it into practical research..."* (8.2.1.1)

#### 4.3.3.14. **Platform for knowledge sharing**

Pakistani think tank organisations gather people from different segments of society including policy makers and the public. A researcher stated that:

> "*…what the existing issues are, on that, the governmental people, former civil servants, they are invited, so they can share their experience with the people…the opinion makers are invited, they come and share their experience, give their opinion"* (7.6.1.1)

### 4.3.4. **Research approaches of Pakistani think tanks**

Table 4-7 Research approaches of Pakistani think tanks

| Institute | Research approaches |
|---|---|
| CIPS | Desk research (secondary and primary) |
| CRSS | Desk research (opinionated; secondary sources-newspapers), Field research |
| IPS | Desk research (secondary and primary sources), Focus groups |
| IRI | Desk research(secondary sources), Focus groups |
| IRS | Desk research (narrative, secondary sources- newspapers) |
| ISSI | Desk research (secondary and primary), Focus groups |
| ISSRA | Desk research (secondary and primary), Focus groups |
| PIDE | Desk research (secondary and primary) and empirical research |

Source: observations, Interviews and institutional websites

Table 4.7 above presents the research approaches of Pakistani think tanks. Among the participant think tanks, secondary desk research is the primary type, with occasional exceptions. In desk research, both secondary and primary research is being conducted. Primary desk research involves the use of nationally/internationally produced data sets available online/in published form. PIDE is an exception, with the capability of handling statistical data, and conducting empirical research with focus on the economy. A relatively smaller organisation, CRSS conducts field research in a journalistic fashion, but presents some data sets on relatively smaller scales. Another

organisation, IRS, has a journalistic approach, since the staffs include journalists and two main projects are based on secondary research from newspapers. The second main methodology of research used among the participant TTs is focus groups. These organisations gather relevant knowledgeable experts and discussions on the specified topic and analysis. A significant gap for adopting new ways of research exists in Pakistani TT's. A young female researcher explained this as follows.

> *"…empirical research! not that 100% is getting done, but as like X went to China, so he came by road, after that, what his analysis is…how could we build Pakistan-China linkages through road and in that, what difficulties will come…its authenticity is quite a lot,…no hard work, whatever found from Google, read 2-4 books, had made a set pattern that's just, we have to do that research,…empirical research is the most advanced research*" (7.15.1.1)

In general, Pakistani (and specifically the Islamabad based) TTs usually conduct desk research, publishing and hold debates.

> "…*as we mostly (study) foreign related topics, in relation to Pakistan, Indian studies, China relations, etc. so most of our researchers are dependent upon articles/books which are written, it rarely happens that they directly interview or conduct research by going there; so yes it is desktop research,*" (6.6.1.1)

*A young female researcher held the view that*

> *"…in Pakistan, so far culture of field research is not that much"* (7.5.1.1).

A senior researcher stated the following about the research culture.

*"A general objective! Specifically for Pakistan's society…promoting a research culture…whatever would be the opinion or policy is that based on objectivity, rather than emotional or some apparent things"* (7.7.1.1)

### 4.3.5. **Outcome of Pakistani think tanks**

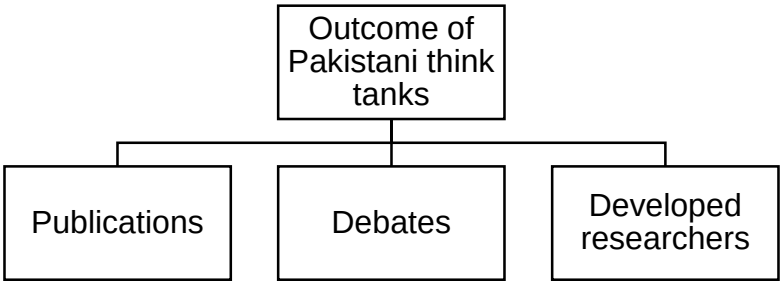


Figure 4-4 Outcome of Pakistani think tanks

Figure 4-4 presents three main forms of outcome for Pakistani think tanks, i.e. publications and debates. Developed researchers who became policy makers themselves are also considered as the outcome of these think tank organisations. A senior authoritative individual shared the need for increased output and diversity as well.

*"...it's not just that has to increase the output, but have to bring variety in that..." (4.1.1.1)*

#### 4.3.5.1. **Publications**

A major output of Pakistani think tanks is publications, ranging from Journals, books, reports, articles, briefs, and newsletters (etc.). A formal outcome prepared after intensive knowledge activity is a source of knowledge preservation, dissemination and sharing.

Table 4-8 Institutions publications profile

| Institute | Journals | Publishing since | Regularity | HEC recognised | Number of Books | Other publications |
|---|---|---|---|---|---|---|
| CIPS | Under development | Nil | Nil | nil | nil | Papers |
| CRSS | nil | nil | Nil | nil | nil | Annual Security Reports |
| IPS | Policy Perspectives,<br>Nuqta-e-Nazar,<br>*Mahgrib aur Islam* | 2004<br>Oct 1996<br>1997 | Good<br>Good<br>Good | nil | 200+ Books, 1500 reports | IPS News, *Mabahis*, |
| IRI | *Fikr-o Nazar,*<br>*Al-Dirasat Al-Islamiyyah,*<br>Islamic Studies | July 1963<br>1965<br>1962 | Fair<br>Fair<br>Fair | Islamic Studies | 100+ books | Monographs, occasional papers |
| IRS | Regional Studies,<br>Selection from regional press,<br>Spot light,<br>Focus | | Excellent<br>Excellent<br>Good<br>Good | Regional Studies | 14 | Regional briefs, Perspective, Monograph series |
| ISSI | Strategic studies,<br>Islamabad papers, | Available on web since 2009 | Fair | | | |
| ISSRA | ISSRA papers,<br>Margala Papers,<br>Monograph,<br>NDU Journal | 2009,<br>2008,<br>2010 | Good<br>Good<br>Fair | NDU Journal (Y category) | nil | ISSRA working papers, Analytical briefs, |
| PIDE | Pakistan Development Review, | 1961<br>2007 | Good<br>Fair | Pakistan Development | 18 | PIDE Policy View Point, MIMAP Technical paper series, PIDE Monograph series, Working |

| | | | | | | |
|---|---|---|---|---|---|---|
| | PIDE Business barometer | | | Review | | papers, Inflation Expectation survey's, Annual reports, Macroeconomic brief, Economy watch, PIDE focus, PIDE InFocus, Poverty and social dynamic paper series |

Source: Observations, Interviews and Institutional websites

A researcher shared

> *"...research and publications, these two means! its main pillars. Rest are allied activities, which have their own value, means coordination happens; there are collaboration activities, now how many institutes are with whom (the think tank) had signed MoU and specially foreign institutes,*" (4.13.1.1)

Table 4.8 presents the comparative summary of the participant think tanks in regards to their publications profile. The table includes journals published by the institutes, the date the journals were published, regularity of the journal, and the status of the journal in terms of its recognition with higher education commission, Pakistan. The table also recapitulates a number of books and other publications produced by the institutes.

A senior researcher who also has a role in the government expressed the following view.

> "…*it's a two way process we also deliver and host. If, let's say, if there is a good research work, then we have an annual research conference in which our economists of Pakistan and international (community) they contribute. Then, we have a working paper series, we also have a technical paper series, we publish books, then after that we recently (in last 4, 5 years) we started publishing small policy briefs,...so our*

*audience now, it's almost (everyone), who wants very scientific or high academic level rigorous outcomes.*" (5.4.1.1)

Under publishing programs they usually present books and monographs, reports, briefs, journals and sometimes policy papers.

"…*we got number of publications in which we have quarterly, six-monthly, and annual publications as well, research associates, also have their individual publications as well.*" (4.16.1.1)

A senior researcher explained that

"...*our X (Journal) is the oldest in Pakistan, rather in Asia, and its contributors are many and the second thing is that it is a kind of a stock of a knowledge*." (5.4.1.1)

Research publications are explicit knowledge, demanding codification efforts to understand and describe the phenomenon.

#### 4.3.5.2. **Debates**

Other than publications, one major activity of these organisations is to organise debates, mostly in form of seminars, conferences, round-tables, workshops, symposiums etc.

*"…we keep diluting on the issues, in form of either of these modes that I have just mentioned: workshops, seminars, round-tables, discussions, conferences and even writing research papers, and carrying out interviews..."* (4.1.1.1)

An experienced female researcher shared that:

*"…we are doing annual conference since 1984...in which we invite foreign people, and even speakers who are big names in their fields, And it is theme based," (5.18.1.1)*

Research events are more of a priority in these organisations, possibly due to two reasons. It is less costly, specifically in terms of time, resources and diversifying intellectual capability. Most of their research events are free and can be divided into two categories: (1) open/public events, (2) invitation based events. Public events are open for anyone to attend and are announced widely through mass media; whereas invitation based events have a defined audience with invited and registered participation. Research events are relatively more interactive, based on tacit knowledge sharing, and involve listening and observation skills, providing opportunity for discussion and networking. Research events could be generally classed as a quick and easy way of attaining new knowledge. For the public, they may be of interest due to conversational and relatively less technical nature, and for policy makers it supports them to meet time constraints and the need for recognition.

#### 4.3.5.3. **Developed researchers**

Another outcome of Pakistani think tanks which have relatively little consideration is number of researchers developed in these organisations. For a research department head, an outcome is their developed researchers.

*"…other advocacy (organisations) and think tanks, are not producing what we are also producing! PhDs. We had approximately 25 PhDs, and all, most are in good jobs and at planning commission, state bank, world bank, international organisations...So we are suppliers of policy makers*," (5.5.1.1)

### 4.3.6. **Dissemination tools in Pakistani think tanks**

Table 4-9 Dissemination tools

| Institute | Online free access to publications | Newsletter | Policy briefs | Newspaper article |
|---|---|---|---|---|
| CIPS | No | No | No | No |
| CRSS | Yes | No | No | Yes |
| IPS | Partial | Yes | Yes | Limited |
| IRI | No | Yes | No | No |
| IRS | limited | No | Yes | Yes |
| ISSI | limited | Yes | Yes | Yes |
| ISSRA | Partial | Yes | Yes | Yes |
| PIDE | Yes | Yes | Yes | Yes |

Source: Interviews, discussions, institutional websites and documents.

Table 4.9 summarises the dissemination tools used by the participant think tanks, namely, online publications access, newsletters, policy briefs and newspaper articles.

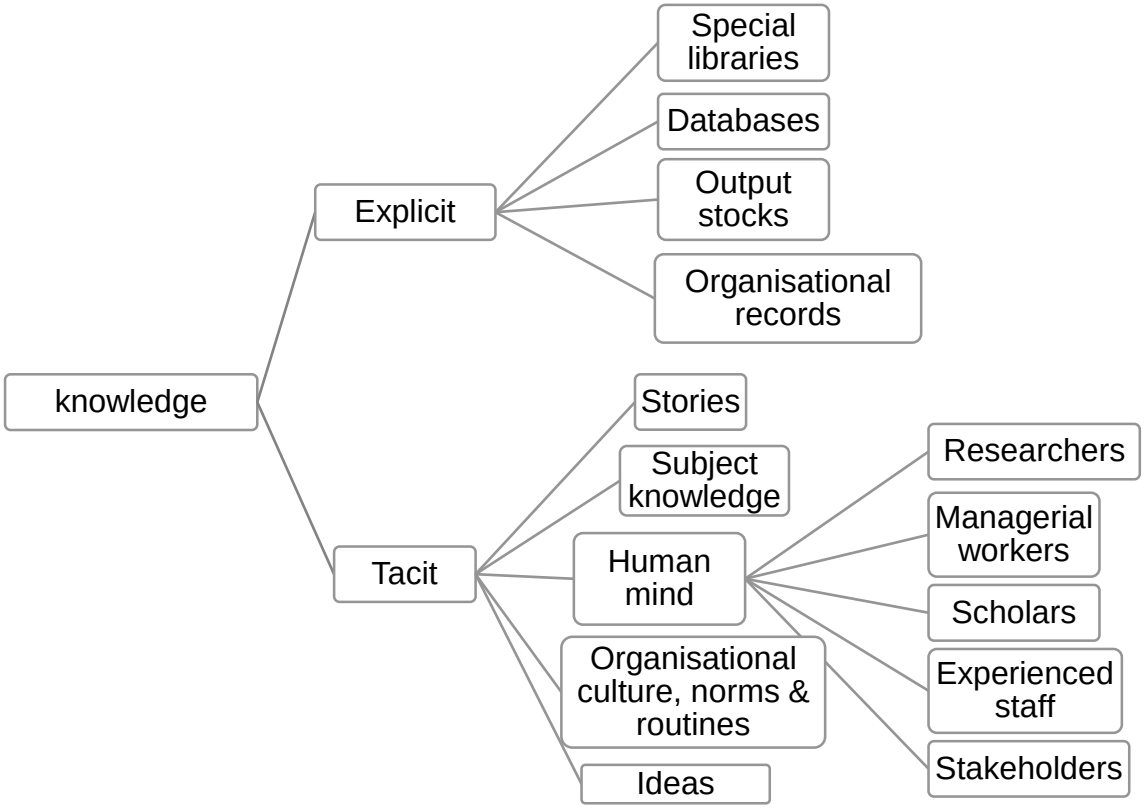


Figure 4-5 Key forms of knowledge in Pakistani think tanks

### 4.3.7. **Key forms of knowledge in Pakistani think tanks**

Figure 4.5 summarises the key forms of knowledge found in Pakistani think tanks, from the perspective of their members. Different aspects possess relevance to knowledge, as described by interviewee's as follows.

#### 4.3.7.1. **Explicit knowledge**

A senior research armed officer explained this as below.

> "*Check the old files, the hard files are still preserved in the library; the old system of maintaining hard files in which knowledge is stored.*" (4.18.1.1)

Similarly, libraries have their own role as specified by a research unit head below.

> *"We depend on two things. One is the library, whatever the budget they have, they do check from us what resources/books we require. Then, desk resources. They also provide some materials on (web)site for use. Likewise, HEC provides a few resources like Jstore etc." (1.10.1.1)*

A senior researcher raised the following concern

> "*If you want to make knowledge free…(X Journal) is free, economics papers, that you search, download for free, the rest cost money and these are not accessible to common people, student, ... (for ideal TT) first thing is being independent and its spirit should be that of free learning, and free sharing; it must be open and free*" (5.5.1.1)

A stakeholder mentioned that

> "(TT name) is trying to preserve knowledge, and books and publications which are becoming extinct now. Book itself is a source to preserve knowledge. To publish means preservation of knowledge, making it available for others." (1.6.1.2)

#### 4.3.7.2. **Tacit knowledge**

A fresh researcher also described how:

> "…*someone who is old…could tell that as much of the work had been done…(a senior member) it would be in his knowledge…as my experience here is almost one year*" (7.6.1.1).

An experienced support worker stated that

> "…t*hese people rely more on face to face discussion*" (1.18.1.2).

The purpose of these organisations is to provide knowledge of a specified subject to people. In regards to subject knowledge a senior manager said that

> "…if *someone is working in finance and from him you are asking about research then it would become difficult for him to give the answer*" (7.3.3.1).

Knowledge and the related value also comes with specific expertise like a senior researcher discussed

> "*It (another think tank) was far better than this. there were many specialists; there were 5 PhDs and there was a man who was really very good, in knowledge and in disseminating knowledge, writing things,…and he speaks Gurmokhi, Hindi*" (3.14.1.1)

Stories coming from individual experience require preservation, and in recognition of that a concerned leader stated that:

> *"...it should be 154,000 people stories, since 154,000 people have participated in peace missions; there should be minimum of 154,000 stories, which could be about popular culture, upon offenses…" (8.2.1.1)*

He further shared that:

> "...*who have experience, we ask to them to come and gave them lectures, since these things are not written down anywhere, and these are all oral traditions, transferring the lessons of one X to others, so we do invite senior officers, brigadiers, generals, colonels, that's it, but all that depends on time of concerned given to us. Even a soldier can come and tell his part of the story, and that would also add to the culture and research and all that culture of actually having that live archives*..." (8.2.1.1)

For a young female researcher, knowledge is ideas.

> "*In my point of view, infrastructure is not even required, that, build a big house and in that put 20 thousand things, that's not required, what you need is, ideas.*" (7.4.3.1)

### 4.3.8. **Critical knowledge resources of Pakistani think tanks**

The four critical knowledge resources found among Pakistani think tanks; knowledgeable leadership, multilingual skills, cultural values and norms, and

conducive environment, are diagrammatically presented in figure 4.6 below

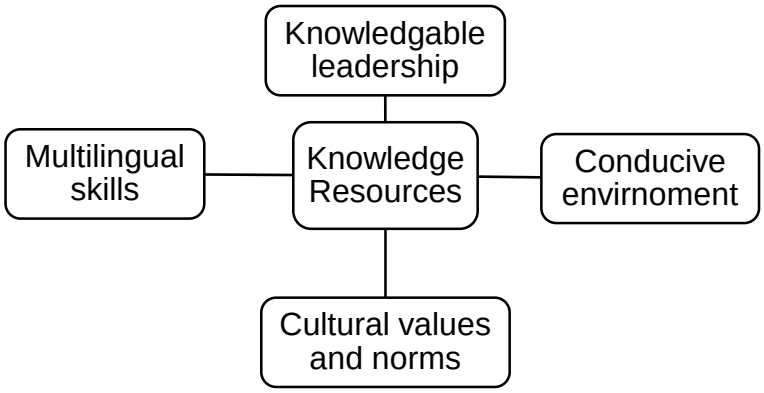


Figure 4-6 Critical knowledge resources of Pakistani think tanks

#### 4.3.8.1. **Leadership**

Leadership has diminished over the years among Pakistani think tanks. Yet, the limited available leadership contributes towards the on-going development of these organisations. The specific dimensions where the leadership has retained its effectiveness are - knowledge dissemination to the policy circles, attracting knowledgeable stakeholders, keeping external relationships, and establishing an institutional brand. Hierarchy of Pakistani think tanks leadership have four key dimensions (see figure 4.7 below): (1) control from the umbrella institution, (2) board/councils as a forum to set direction of the institution, (3) chairman/president mostly an authoritative person, could be from the institutes founders and usually an individual of political say or who have governmental authority, and (4) an operational head usually called as director general/executive director.

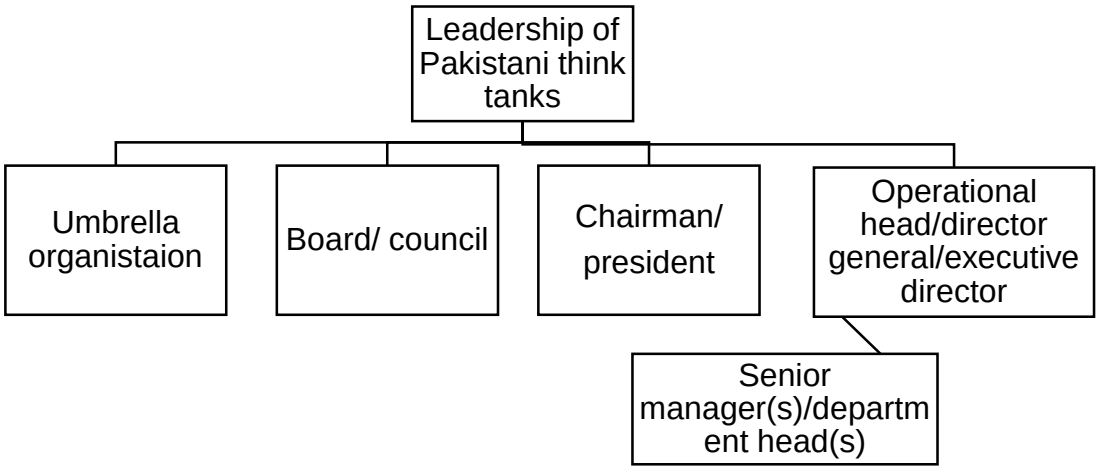


Figure 4-7 Leadership of Pakistani think tanks

Table 4.10 below categorises the current leadership of the participant institutes, distinguishing their professional backgrounds.

An operational head described the role of academic councils of these organisations.

> "…*when our national academic council met, we proposed a program …People in our national academic council; they all are senior scholars, are specialists of their own subjects, also they are part of the government system…the national academic council is an institution, that has been, present since day one. Although, its meeting frequency was little less in the start; had been in the starting few years, and then afterwards it decreased, so the national academic council is such an organisation which gives guidelines about the whole program" (7.1.2.1)*

Table 4-10 Profile of operational heads

| Institute | Umbrella organisation | Board/ council | Chairman/ president | Operational head | Senior managers / Department heads |
|---|---|---|---|---|---|
| CIPS | National University of Science and Technology | - | Retired army personnel and founding member | | Experienced army personal/ senior academics (PhDs) |
| CRSS | Heinrich Böll Stiftung (founding organisation) | yes | Journalist / activist | | Experienced journalist/ professionals |
| IPS | n/a | yes | Founding member senior researcher/ academic and political figure | Academic/ philanthropist | Experienced researchers/ professionals |
| IRI | International Islamic University, Islamabad | yes | Universities leadership | Academic | Experienced academics |
| IRS | n/a | yes | Retired army personnel | Experienced professional | Experienced journalist/ professionals |
| ISSI | n/a | yes | Retired ambassador | Academic (with vast majority of previous heads were retired bureaucrats/army persons) | Experienced researchers/ professionals |
| ISSRA | National Defence University | | Army personnel | | Experienced army personal/ senior academics (PhDs) |
| PIDE | n/a | yes | Experienced Academic | Experienced Academic | Senior academics (PhDs)/ Experienced researchers/ professionals |

Source: Observations, interviews and documents

A perception is that board of governors of are dummies, exist in Pakistani think tanks.

This perception is not much different than the ground observations. Interaction with

board members rarely takes place and leaves little impression. Although, they are experienced people they have little energy to spend, have a positive spirit and concern for the nation, research, policy and new generation. An experienced stakeholder and board member of TT organisations commented that the

> "*Board of governors of think tanks are just dummies*." (3.7.1.2)

An operational head described the institutional lead.

> *"(the institute) is fortunate in that to it a very dynamic leadership is available since day 1,…(its) actual role is that it could provide motivation; could give a push to vision*" (7.1.2.1)

A difference of style between the academic and practitioner heads flows down the organisation, making it more academic and/or professional. A senior scholar revealed that

> *"…First of all the ones who run this place are not scholars. Simple is that, this is number one problem*…" (4.3.1.1)

The characteristics of the heads praised are visible by the following quote of a female researcher.

> "…*she (ex-head of the institute) was helpful….conducts evening classes and the institute would pay for it,… she encouraged it, she gave, she said-learn, she was a very tough master… for the institute she runs a lot of work, and I think it should be recognised because I am a beneficiary of it.…I have learned from her..."* (3.20.1.1)

Leaders are a source of job security in Pakistani TTs as one experienced researcher explained

*"…if you have a degree from Australia, you have a PhD from America, and the boss is by himself, helpless, is BA passed, so, to him you will not be pleasing. So, there is no job security. Where there is no job security, I am not able to understand how the 905 people (researchers) are working (in Pakistani TT's)…I think basic problem with Pakistani TTs is due to (leaders) personalities they are running the institutions, and not because of their knowledge and not because of their in-depth analysis of a problem, so these institutions are very much personalised and sometimes they conflict with each other, taking benefits of the rival institutions,…no one collaborate with each other*" (3.14.1.1)

A female researcher expressed frustration caused due to a lack of listening power of the leadership.

"*If a leader tries to impose and wants a researcher to do whatever he wants, then anarchy starts building. X doesn't have the stamina any more to listen others*." (7.4.2.2)

In another interaction, she described knowledge corruption by an operational head.

*"Obvious! they don't have enough time to listen to all these…(leaders) efforts always remain that what are your new hiring's, they always (directly) interact with you (the leader)*" (7.4.3.1)

A senior researcher voiced subjectivity of leader's decision-making authority

"…*here the criteria of specialisation is very different it is between the boss and you, he likes you he dislikes you*." (3.14.1.1)

A senior female department head criticised how

*"…you can't change the boss, the boss came readymade"* (6.4.2.1)

A senior researcher explained that with the change of leadership, the organisational strategy and the research focus might also be shaped.

> "…*we are not concerned with domestic issues, but because there had been a change of director general just recently. Our present director general feels that we need to focus on internal issues, more than the international issues*" (3.8.1.1)

#### 4.3.8.2. **Multilingual skills**

Multiple local languages spoken in Pakistan along with a historical focus on academic language, was perceived as a matter of prestige in the area. Arabic, Persian, and Urdu were mainly taught since the child hood as mandatory only half a century ago. An effect of colonization was the reduction of these languages and a shift of focus to the English language.

> *"In the 18th century, the colonial system destroyed it. Arabic education was diminished and the English era started"* (7.12.1.1)

Still, a decade ago, the English, Arabic, Persian, Bengali and Urdu primarily remained popular in the academic circles of Pakistan. Books were published in all these languages, and organisations had experts, thinkers and researchers who had command of multiple languages. The historical richness in terms of multiple languages used by knowledgeable circles has been lost. The current situation is devastating due to a lingual cavity, as well as a lack of experts. There are only a few experts left who have command of multiple languages, and what is more shocking is that they are about to retire in a couple of years. If not saved, there would be a significant loss of

multilingualism more crucially for the highly knowledge intensive organisations, like think tanks.

> "*Many people are going to retire now, and have already retired. They have to be preserved. It would be our bad luck if we would not be able to preserve the knowledge of these knowledgeable persons*." (1.6.1.2)

Anguish is of the loss of these international languages; the larger confusion is the clash of the English and Urdu languages. Though Urdu is the national language of Pakistan, the English serves as the official language (CIA, 2016). The first language of the work force remains the local language of their native areas within Pakistan, which is diverse. However, Urdu remains the main mode of conversational communication. Where, the English serves as the mode for formal official communication and documentation. An experienced person shared that:

> "*In Pakistan there is another dimension of 'language'; whether to do research in Urdu or not....HEC's parameters are that peer review (etc.) should be conducted and it comes in the international parameter, and that is, not supported by Urdu*." (7.1.1.2)

A senior female researcher conveyed that:

> "…*the ideas or the concepts should not be confined to language-one particular language, that is, the English. I am sure the people who think in Urdu can also think very deeply….I am not talking about the regional languages, I am talking about the national language-Urdu,…they should be equally encouraged to write, and don't say that we should have the translators around because obviously that requires, perhaps, huge finances as such. However, we can introduce a publication. Yes in*

*Urdu….(our) all (publications) are in the English…Researchers then, if they cannot speak very well, if they cannot write very well in the English, then eventually they would restrict themselves; they inhabit themselves. I think we should discourage that. After all, we look at the histories of the nation it is the language which is the first barrier broken….it is very important that we should know many languages also…They should be encouraged to become affiliated with the language institutes, which can facilitate the language classes for the researchers.*" (3.1.2.1)

One expert said that

"*I learned the Japanese language, though it was not my requirement*" (3.14.1.1)

Another leader expressed his concerns as follows.

"The *Chinese do research in their language others do it in their own language, only (we)! …their keypads are even in their language, and we (only) in India and Pakistan, we are using the English keypads. So South Americans, they speak the Hispanian language. Everyone speaks their own language, its OK that the English has gained the status of the international linguae franca,…OK if you want to go along in the world, but if you have to do research on your own issues then you have to do it in Urdu. We'll translate it later, translate it in the English as well, but you will use your first language sources in Urdu; nothing else*" (8.2.1.1)

Table 4-11 Languages used in participant think tanks

| Institute | Collegial language | Internal meetings | Meetings with local externals | Other languages known by the researchers | Conferences/ seminars/ Public programs | Publishing in | Website |
|---|---|---|---|---|---|---|---|
| CIPS | Urdu Punjabi | Urdu | Urdu English | Chinese | English | English | English |
| CRSS | Urdu Punjab Pashto | Urdu | Urdu English Saraiki Sindhi | German Pashto | English Saraiki Sindhi Pashto | English (and local newspapers in local languages) | English |
| IPS | Urdu Punjabi Pashto | Urdu | Urdu English Punjabi | Chinese Pashto Afghani Arabic Persian | English Urdu | English Urdu (previously in Arabic) occasionally Chinese | English Urdu |
| IRI | Urdu Punjabi Pashto Arabic | Urdu Arabic Persian | Urdu English | Arabic Persian Pashto | Arabic English Urdu | English Urdu Arabic Persian | English |
| IRS | Urdu Punjabi | Urdu | Urdu English | Chinese Afghani | English | English (previously Urdu, Hindi) | English |
| ISSI | Urdu Punjabi | Urdu | Urdu English | Chinese Dari Afghani Saraiki Japanese | English | English | English |
| ISSRA | Urdu Punjabi Pashto | Urdu | Urdu English | Pashto | English | English | English |
| PIDE | Urdu Punjabi Pashto | Urdu | Urdu English | Arabic Persian | English | English Urdu | English |

Source: Researcher's observations and interaction with institute's members

The variety of languages in participant think tanks are summarised in table 4.11. Specific languages are used by the area experts/officials in direct contact with the relevant research communities, for example, (1) researchers studying Pak-China relations may show interest in Chinese language to understand the Chinese culture better, or the officials hosting Chinese delegates, or going along delegations to China would be learning it to avail the benefit. (2) Area experts working on Afghanistan might

take interest in Dari language. (3) Scholars working on tribal areas of Pakistan would take interest in learning the local languages. (4) Similarly, the organisations working in close collaboration to German organisations may avail the benefits of knowing Germen. These examples not support widespread use of the languages among the think tank community. Occasionally, these institutes/the specified researchers publish in these languages in collaboration, for example, a participant institute had a few publications in Chinese.

A female researcher discussed the subject specific needs of language:

> "…*if you need to be an expert of an area you need to know the language, you need to know the culture, and you need to spend time in that particular area,…,that is, where we suffer…I focus on Afghanistan so I am learning Dari I am paying for it myself…you need to get institutional support for this"* (3.20.1.1)

She further explained that an organisation benefits when the members know multiple languages

> "…*we have an expert on China. When the Chinese come, he talk to them in Chinese, so now tell me that on whom that, like the benefit is to the institute right...We had another women…she was learning French…she (ex-head) signed an agreement with the Chinese that from here our people will go and will spend two years in China, so that they can learn the language*" (3.20.1.1)

A young female researcher explained the need of local languages, saying that

> "*Initially we were focusing the English newspapers then realised that the English newspapers have less outreach then we started with Urdu and even local languages, e.g., Saraiki*." (2.3.1.1)

Further, a retired think tank leader mentioned how

> *"…(old training programs) included languages English, Arabic, Persian…"* (1.12.1.1)

*A senior editor put forth the following.*

> "…*it have published many books in Urdu, Arabic, Persian, and at that time when it was one country in Bengali as well…its 3 major journals, which are being published from its very first day, which are distributed all over the world were accepted widely as a research journal.*" (1.9.1.1)

A senior female researcher stated

> *"At a time we started publishing our policy briefs in Urdu as well for common people" (5.15.1.1)*

Figure 4.8 presents graphically the use of various languages in Pakistani think tanks as it differs for several kinds of communications. The length of the horizontal bars relates to the aggregate usage of the language at certain mode of communication. Punjabi being the local language of that area is mostly used for the informal conversation. Pashto is the second local language after Punjabi with little difference probably depending on the population difference in these organisations. Similar is the case with local language Saraiki. Urdu is the national language and is particularly spread over the metric used from formal to informal and tacit to explicit.

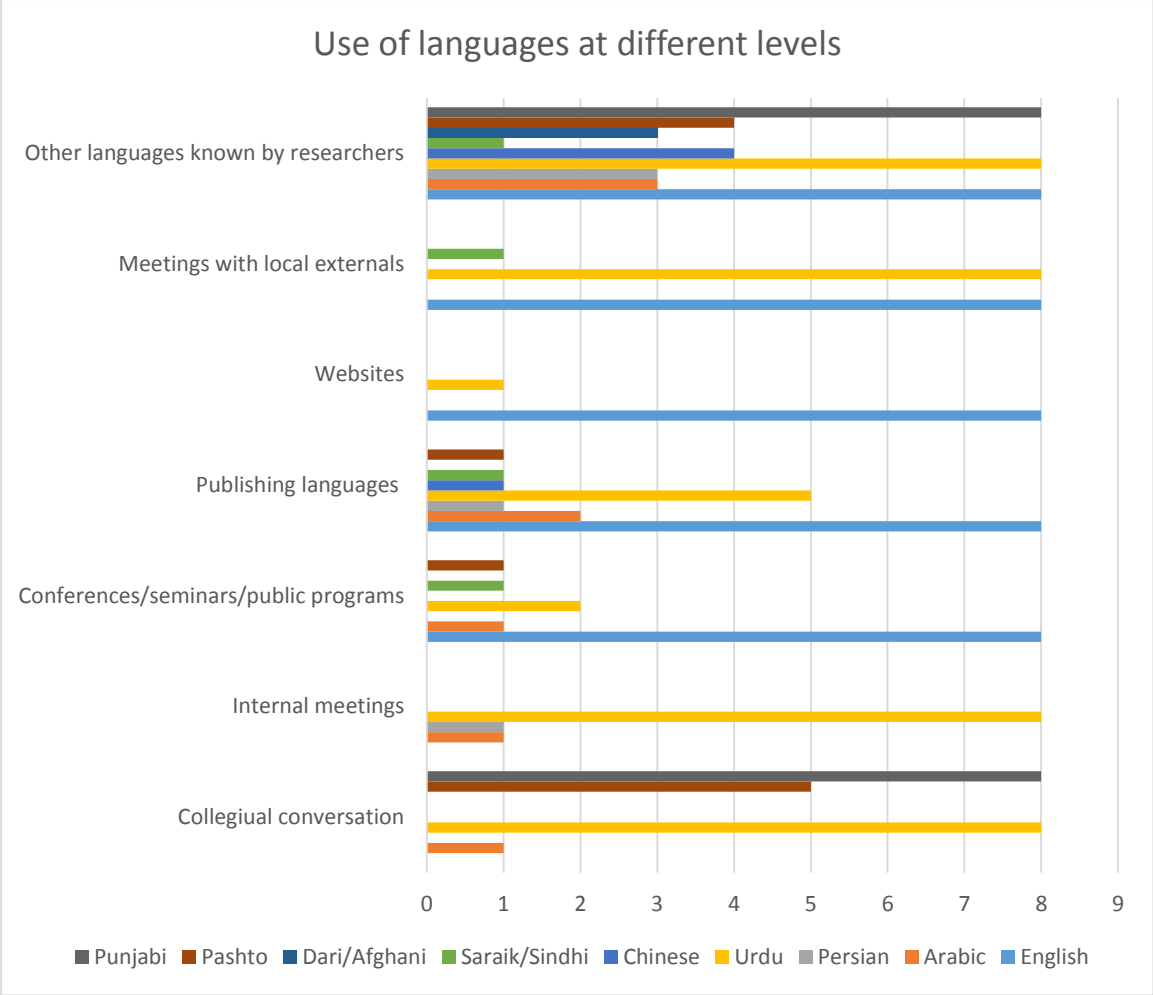


Figure 4-8 Use of multiple languages for diverse communication, in Pakistani TTs

#### 4.3.8.3. **Conducive environment**

The internal environment of Pakistani think tanks is research and writing friendly, which motivates the researchers and provides guidance in a supportive manner. It encompasses academic characteristics, encouragement for collaboration, is supportive and respectful, providing its members organisational ownership. Selected connotations surrounding the conducive environment of Pakistani think tanks, as described by the research participants, could be summarised in the following figure and is supported by relevant quotations below.

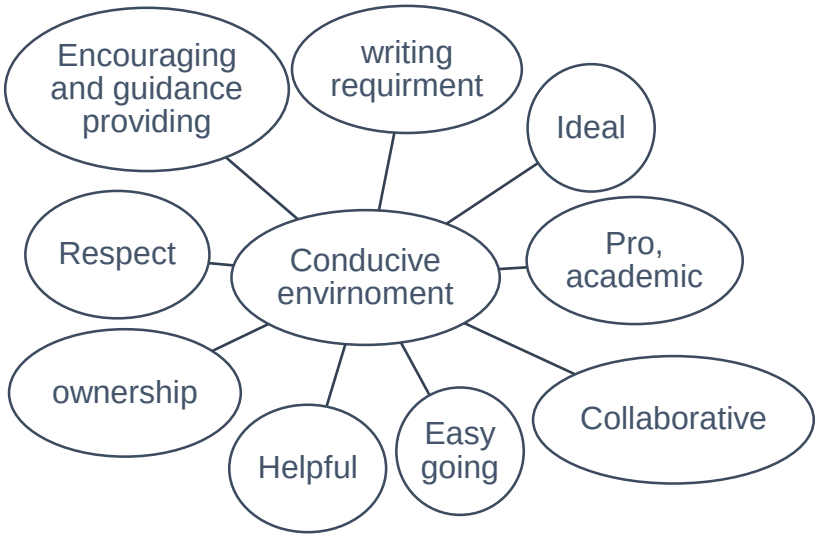


Figure 4-9 Conducive environment connotations

The need for a conducive environment was explained by a researcher as

> "…*research is very difficult thing to do and I think writing is the most difficult thing one has to do so for that you need a very conducive environment*" (3.20.1.1)

There were multiple views from the participants regarding the environment. For example, two senior admin personnel stated that the

> "*Environment is ideal for research*." (5.2-3.1.1)

A female researcher mentioned that

> "*Its best thing is its environment very pro, means it's very academic, very good, all people together they collaborate, to give active research output*." (5.22.1.1)

Pakistani TTs have an informal easy going environment, as expressed by two young female researchers as follows.

"*You don't have to go through lot many channels, just knock, enter and discus. I don't have to wait…all are very helpful*" (5.7-(8).1.1)

They further stated that a think tank environment provides convenience of communication between juniors and seniors.

*"...even the easiest thing is! X he is very senior, was VC and joint director now. Any time when I text (instant message) him, my questions are mostly on messages. Sir could I do like this to data, he replies....I don't have any limitations, if I simply do a text message I don't have to wait for 2-3 days… He replies immediately.*" (5.7(-8).1.1)

Another researcher stated

"*Whenever we discuss with seniors they encourage and guide*." (5.1.3.2)

An environment becomes conducive when the members owe the institute and tasks in relation to their research motivation. A young female researcher stated the following

"…*when you own one thing, and me and him its approximately now 6 year, and we have seen that time as well when here, it was absolutely nothing, only a few people (approximately 20),…your maturity level is different to see these things. Right, in 1/2 year service you say, I need this, I need that, oh my God, what they have done, you didn't know the background of things regarding how they are working, how it has been built; what was the problem*," (4.13(14).2.1)

The ethical climate of Pakistani TTs has become a cause of an employee's long term retention. Old employees with a longer tenure are more likely to stay with the same

organisation. For example, a support worker having 30+ years' service expressed that he found respect from knowledgeable seniors (1.4.1.2).

#### 4.3.8.4. **Cultural norms and values**

Knowledge management ties in with culture, and more specifically Pakistani culture where values of sharing, guiding and mentoring are dominant, serving the nurturing grounds. In relation to specified values of the culture, the importance of KM processes are known, and might not be in the technical terminologies that come from the developed world.

An admin manager touched on the concept of geographical norms, which keep the people together, stating that

> *"…the concept of communities, (muhally darion) is there, elder (buzurg) is sitting"* (5.23.1.1).

A senior spokesperson described a very important characteristic of the nation as below.

> "*When an earth quick appeared here, 75,000 people were killed, but here we didn't had deployed shoot on sight orders. Today the Japanese are coming to see the Pakistan's model, so that means we have strength. I call it, Pakistan is a nation of crisis. When its crisis we do tremendously well"* (4.1.1.1)

An admin manager expressed his frustration against the degrading norms in society.

> *"…these values are of Islam, self-denial is, self-less committed deliverable attitudes, human respect, values respect, system's*

*respect…. No one is big; I witnessed there, here every second person is big" (5.21.1.1)*

An experience member described how:

*"…with the passage of time, that dedication…obviously you see the lack in the society….its values were changed"* (7.11.1.1)

Furthermore, a director emphasised how:

"…*this is also necessary that the institutes own traditions and over a period of time the values are transferred to the new comers*" (7.1.2.1)

### 4.4. **Knowledge management awareness**

Knowledge management awareness level is low in Pakistani think tanks, since out of the large number of interviewees, approx. 3% responded in KM relevant terminologies. Many interviewees behaved as it is new for them, and they will not be able to reflect on it. The context is of research but different than other fields of social sciences, such as International relation studies, defence studies, political science (etc.), and a little reluctance for management sciences research had been felt in the environment. The gap is covered by having a layman discussion, rather than using the technical language of KM. Factors contributing to lack of knowledge management awareness are summarised in the figure below.

In response to questions of objectives of the institute, a support manager said that

"*It's not relevant to us, senior and joint-director level people who had their input at the foundation level can better answer."* (5.2-3.1.1)

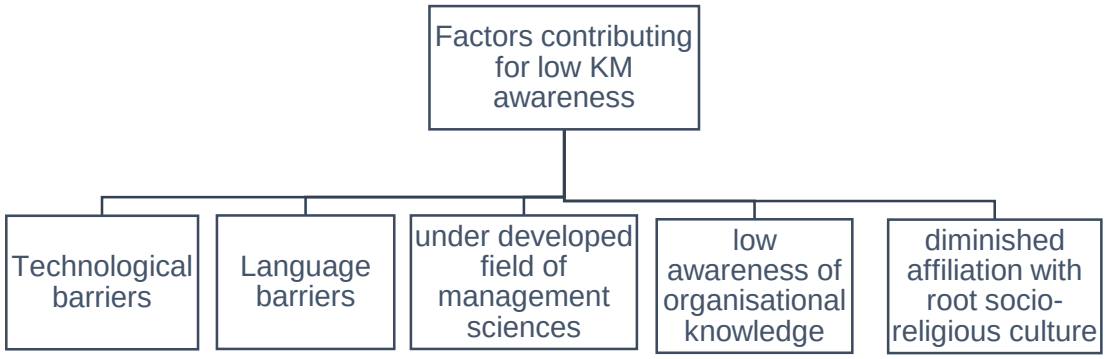


Figure 4-10 Factors contributing for low knowledge management awareness

The phenomenon is related to the organisational objectives, and goes down to the organisational knowledge at the operational level. A senior administrative officer shared the following:

> *"…when you go to rules and regulations, then these things to a non-administrator person are not known."* (5.23.1.1)

A lack of awareness could be classed as distance from the global language of English, since the dominant language of Pakistan is still Urdu. The Urdu terminologies of 'Tehqeeq'–Research and 'Ilm'–knowledge have their own contextual understandings, along the guideline of the dominant religion of 'Islam'. A senior researcher claimed that

> "*Islam gave us knowledge and before that it was darkness***."** (5.14.1.1)

Dimensions highlighted in relevance to existence of knowledge management awareness are summarised in the figure below and evidenced with example quotations provided subsequently.

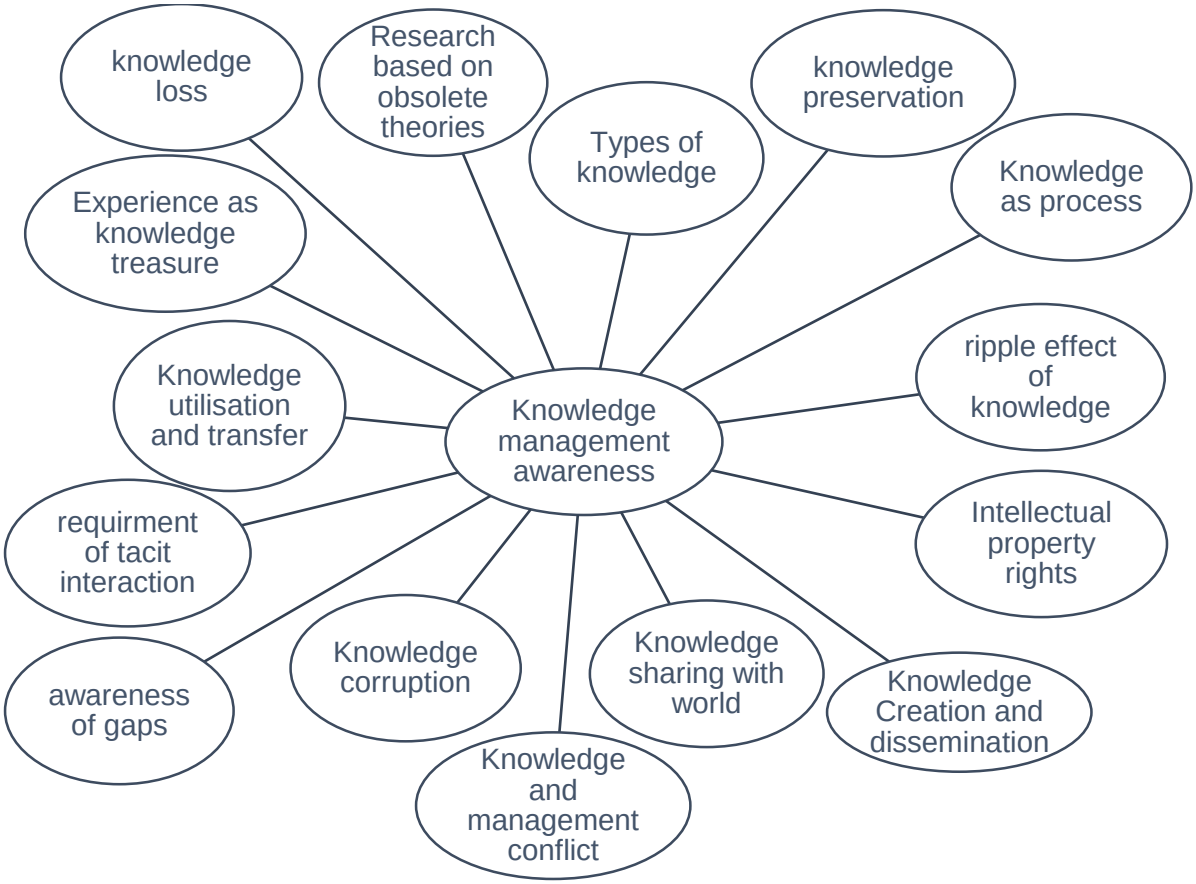


Figure 4-11 Dimensions of knowledge management awareness

It is a common understanding that think tank organisations are inducing knowledge creation, and many of them do admit that they are weak at knowledge dissemination. Rather, being conscious of different requirements to manage different kinds of knowledge, is known by a few. For example, an interviewee said

> "*Which type of knowledge you are considering material, knowledge, spiritual. Then management is of my kind*." (4.20.1.1)

A researcher described the world's dilemma surrounding research, which is developed on dated theories and raised the need for developing research considering the uniqueness of context and time.

> "*Research on the basis of obsolete theories is going on and it is the mismanagement of knowledge, today's environment is dynamic, every moment is unique and making a context, then how can we judge that on the basis of old knowledge."* (5.14.1.1)

There were concerns about knowledge loss, as established by a senior researcher, who said that

> "...*yes their knowledge is buried with them*." (8.2.1.1)

A realisation towards knowledge preservation is found in Pakistani think tanks. Failing to preserve the knowledge would be a national loss. Explaining that, a director mentioned how the potential methods of knowledge preservation and utilisation could be achieved through stories.

> "*We, as well going to start out, there a gallery starting from 1960 when they (peace mission) started going, and in that you will see that their uniforms also got changed, their dresses got changed, people's body language also tells many things*." (8.2.1.1)

The director was concerned that if proper attention is not paid, the treasures of knowledge

> "…*will be lost, this experience of 54 years will lost forever unless we do some tactical research on it*," (8.2.1.1)

A research department head defined knowledge utilisation as the engagement of a research team in projects according to a defined time-line. For him, publication and the transfer of knowledge to new member avoids the wastage of knowledge.

"*I have one RA (research assistant) and 5 Interns, to them have given projects and time. Knowledge is not getting wasted. Then we publish as well...Image building by us, and giving them first-hand knowledge*." (4.18.1.1)

The consideration of knowledge as a process also found there when an elderly researcher mentioned

"*Gaining knowledge is a continuous process....With each passing day you increase your knowledge*." (7.12.1.1)

Furthermore, a senior researcher shared that the dimension of knowledge is an on-going process that may and may not have its impact on the short term, and the outcomes could possibly appear over decades. The impact of knowledge could follow a ripple effect.

"...*shell of knowledge get ripened even after 50 years, that it was taught to me by my teachers, knowledge is on-going process*." (4.20.1.1)

Additionally, enhancing level of awareness an experienced researcher added another dimension of intellectual property right

"…*for knowledge there come intellectual property rights that's another issue*." (5.5.1.1)

Whereas, another senior researcher was concerned about knowledge sharing with the world

"…*our linkage with the rest of the world in terms of development or sharing knowledge*" (5.4.1.1)

The requirement of tacit interaction is further described as follows.

> "...*they (research departments and researchers) should gather and make a plan for 'what are the issues that we will be investigating'* ..." (5.14.1.1)

An awareness of any phenomenon is inclusive of the role for acceptance. An awareness of what is required and an awareness of knowledge and practice gaps lies under knowledge management awareness. An army officer on a research post held that

> "*…we have to tell we are positive. Right effects to knock the doors of world that our perception is false and we are not bad, it is case of knowledge and management*." (4.20.1.1)

The inherent conflict between knowledge and KM raises questions, and cultural repulsion in Pakistan could be a reason behind this. The most detailed note was provided by a director, who also held a governmental position.

> "*We learn from experience. There is certainly lot of truth and validity, but there is also another aspect which is there every moment, is imperially new. This moment has never existed before and will never exist again. So, every human being is completely unique, means, what my experiences are, that have never happened to anyone else, nor will happen to anybody else. Nor can I communicate it to anybody. Means it's all within me, and there is no possibility that I can tell anybody about who I am....that means that science is basically concerned with the repeatable-what you can learn from patterns and experience. But there*

*are a lot of things which are happening, which are unique, one time, one kind event, and for those, science is not applicable. So one needs to develop a new way of thinking and actually these are present in our own Islamic traditions and how to cope with one time events, however, this requires a different kind of mind set, a different kind of thinking.*" (5.14.1.1)

A female discussant touched on the topic of knowledge corruption.

"…*We do not have that degree of corruption, I have seen in organisations people do not transfer learning. Departmental learning is not transferred*...they (IT department) don't provide the data" (5.(7)-8.1.1)

The above examples clearly demonstrate the existence of knowledge management, as well as knowledge intensity. It cannot be said that an awareness of KM is lacking, though the use of latest KM terminologies is scarce. The reason could be the difference between the local language and the English. The next section will present the level of formality/informality of knowledge management in Pakistani think tanks.

## 4.5. **Level of formality or informality of knowledge management**

Pakistani think tanks both formal and informal channels but the informal proves to be more effective. A researcher has healthy environment to discuss their research ideas with colleagues and seniors in informal way, and later when the idea become mature and take some shape, it is formally discussed. A formal channel of monthly meetings is common in which researchers brief about their research and get feedback to proceed further for reporting and publication. Highlighted factors distinguishing

formality and informality of knowledge management in Pakistani think tanks are discussed below and summarised in the following figure.

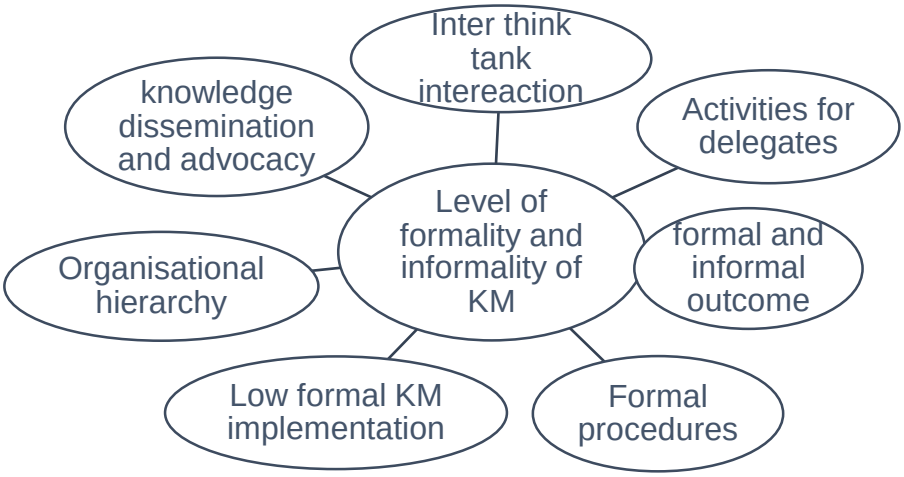


Figure 4-12 Highlighted factors distinguishing formality and informality of KM in Pakistani think tanks

### 4.5.1. **Organisational hierarchy**

Pakistani think tanks are generally small organisations, of mostly a flat structure, with little hierarchy (for example (PIDE, 2015)), depending on the nature of the organisation, whether they are linked with governmental bodies or a university, etc. the organisations primarily have a president/chairman, executive director/operating director, research stream with usually three levels: senior researchers, researchers and research assistants, administration stream, i.e. managers, assistant managers and support officers. Pakistani TT's are a centralised structure with little departmentalisation, have an open culture, and present an organisational model which is further shaped in an informal structure. They are usually organised as, subject-wise research desks with one/two members responsible for overlapping tasks among the

team. A warm collegial environment is the strength of such organisations and, that is, a reason for causing these organisations to survive in difficult circumstances.

### 4.5.2. **Lack of formal knowledge management implementation**

The formality level prevalent in the armed forces is strengthening KM to become prominent in the institutions. Knowledge management and think tanks have a historical link with the armed forces (Horwitch and Armacost, 2002) that had initially made their explicit use. The military has set up a basic understanding that still takes place is described by a brigadier.

> "*Management skills are not more in anyone else, but the armed force. When it's working under the army, then up keeping of knowledge, its management is much better than other institutes*." (4.18.1.1)

However, no formal implementation, defined program, policies and/or procedures, in relevance to KM are found. Also, considering the low awareness level for the technical field it is irrelevant to expect formality. Another major factor that plays a role in the lack of official formality is the technological gap, followed by financial struggles.

### 4.5.3. **Formal procedures**

In the above situation, there is still a good balance of formality and informality found in Pakistani TT's. The definition of formal procedures and supporting manuals are one segment working in parallel to KM formality. Weakness in proper implementation and appropriate revision is found in these organisations. Another segment is their formal meetings and discussions, and deliberation on their knowledge and the inherent informality in their knowledge work is not ignorable here.

### 4.5.4. **Formal to informal outcome**

The major work streams of Pakistani think tanks, i.e. research publications or events, are chiefly developed from informal knowledge management. A research seminar, though formally organised, a deliberate platform provided for knowledge dissemination, knowledge sharing and knowledge recording, however, the informal KM alongside is of more interest to the stakeholders. This is especially true when compared to the formal presentation or the limited discussions followed by the presentation, informal discussions during lunch and tea breaks that allow individuals to deliberate on their and other ideas more inclusively. A senior researcher praised this as per below.

> "*The one best thing is the opportunity of interaction with diverse groups of individuals and organisations*."(3.8.1.1)

A senior admin member also shared how:

> *"…our monthly get together…in that doing discussions, initiating these topics (to enhance motivation), means that we celebrate effectively…with different people who are our seniors, with them, we (share) their experience; we do share that on different occasions, which is, also a source of inspiration and source of motivation as well." (7.3.3.1)*

Within this point, it is notable that the subject areas of these organisations have some inherent criticality and a sense of confidentiality at the national, political and personal level, which limits it at the formal level.

A research publication, though formally written and published, it is initiated on the original idea gathered from informal discussions. From initiating the work on an idea to taking it to a mature state, this involves collegial discussions in general until it

reaches some formal shape. For these informal discussions to develop a research article, study or develop knowledge in one's subject area there are no formal boundaries/hierarchies. A junior researcher could walk to the senior member without hesitation and can discuss the point he/she is trying to understand. Seniors also share their knowledge and experiences openly. There are some exceptions, depending on the specific circumstances and/or specific persons. Similarly, no hesitation has been found among researchers of different genders during formal and informal interactions.

#### 4.5.5. **Activities for delegates**

There is a good balance of formal and informal activity, which is maintained in other cases, for example, with foreign delegates. If a formal activity had been planned during the office timings, then other than office hours, semi-formal or informal plans would be made to give them a cultural feel and a common ground understanding. Formal activity generally involves conferences/seminar presentations, meeting with researchers, officials and academicians, visits to official structures, and field visits (etc.). Informal activity includes visits to tourist spots, friendly dinners, cultural events, and other relevant plans. This informal interaction enhances cultural understanding and changes impressions. This remains a win-win situation, which generally leads to the formal consent of working on collaborative studies, agreements and MoU's between organisations.

#### 4.5.6. **Inter think tank interaction**

Pakistani think tanks neither have any regulatory body, nor have any association, which provides one single platform for these organisations. There is a lack of interaction and facilitation of the higher education commission to these organisations. Although, there were a few desires and individual attempts from these organisations

to gather other similar organisations, they have not yet materialised. Such interaction varies from attending seminars/research events, by other TTs members, to presenting/publishing in journals of other organisations. Some have strongly raised the need that a network of TTs should be developed, however, for some it is not required. A senior researcher reflected his lack of concern with the matter as follows.

> "*No, there is no network we just have a list of various institutions, research organisations, and they are called through that list*." (3.8.1.1)

### 4.5.7. **Knowledge dissemination and advocacy**

Lack of access and resources for knowledge dissemination to state and society, takes it to measure at the macro level. Rather than adopting the formal procedures for advocacy, generally they consider it as informal, and keep it with their alumni and stakeholders associations

> *"...the people who come to our training are our ambassadors, representatives, they do our advocacy... Plus, now we have a teaching also, our graduates, wherever they go, they become our representatives, they become our ambassadors. And, I think, that is our contribution in one way or another."* (5.5.1.1)

## 4.6. **Knowledge management enablers**

Pakistani think tanks' resources have generally been understood as material and financial resources, and their intangible resources are rarely considered. In the perception of the participants, the primary concern for a TT is 'funding', since research is of great importance. One explanation is that tangible objects do not work automatically, and require human intervention to make use of it. Furthermore, it is not only an individual who is utilising tangible resources, they also utilise other human

resources. The relational link becomes more important when moving from tangible resources to intangible resources. Human capital cannot work in a vacuum, but by making use of relational capital they can use structural capital to meet their goals. It is evident that Pakistani TTs work with their basic structure and at a human capital level they have certain limitations. Another important type of capital they possess is their relational capital with stakeholders, which proves to be particularly important. A senior management official defined the needs of a Pakistani think tank in the following way.

> "*Three resources are required to run any such institute, first, human resource, as capable the human resource will be that much the institute academically or administratively will progress. Second, need is the financial resource, without which institute can't run, any institute can't run, even smallest business, as its back bone is the financial resources. Thirdly, material resources, which are based on yours financial resources. yours infrastructure is, very basic thing, that should be available, in required infrastructure, this building, a premises should be which should fulfils your needs, in that those required facilities should be available, in that these books are, its material resource. Alhamdulillah,…these three resources are up to suitable extent (here)*" (7.3.3.1)

Another senior female researcher mentioned that the

> "*output could be more if more will be the researchers, more will be the funds, there is no place to make them sit*" (6.4.3.1).

The knowledge management enablers in Pakistani think tanks could be classified into three categories of human capital, structural capital and relational capital which are

summarised in the figure below. The sub-sections below presents in detail the three knowledge management enablers found in Pakistani think tanks.

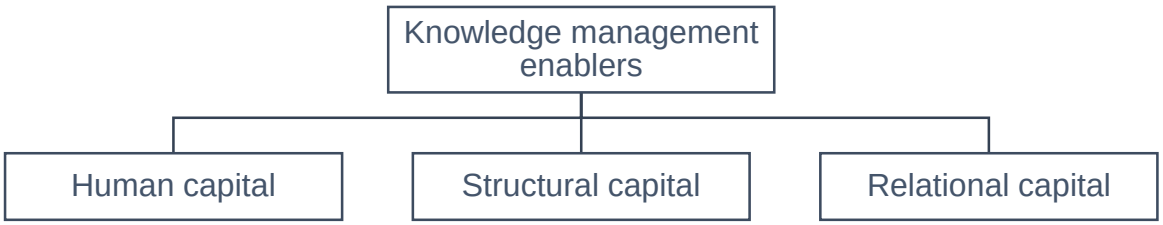


Figure 4-13 Knowledge management enablers in Pakistani think tanks

### 4.6.1. **Human capital**

Pakistani think tanks have diverse employees, which includes academic and professional, young and retired, male and females as well as a mix of civil and military personnel. The formal educational level of employees also varies from secondary education to professorial level. A dearth of doctoral degrees in Pakistan is reflected in the think tank sector, where it is somewhat scarce, with a few exceptions. A professors or a doctorate are rare in these TTs, where PIDE is a major exception, holding the most doctorates in the country. Although a large number of researchers hold masters/MPhil degree in their relevant subject, a shift of sub-field during the course of their research is also common, i.e. a change of their research interest, though remaining within the social sciences. Concerning the new generation of researchers, there is a question whether or not they had shifted their field from natural sciences to social sciences, or whether they want to have a career as a researcher in social sciences, bearing in mind the low job market and increasing unemployment in Pakistan (CIA, 2016). Despite these characteristics, it is the human capital that makes organisations. A leader expressed that

*"...there is no organisation there is no think tanks, just people who are thinking, interacting with each other in different ways" (5.14.1.1)*

An experienced interviewee reflected that:

"…the *actual asset, by the way, are the people…they are giving the output…that big vacuum…these people who are working with us here, and to them we over-look…whole life experiences, gathering and share (with the think tank), retired people are, who are outside (the think tank) means are not here among us. So those are a big asset…it's their knowledge and experience, which is now…being shaped*" (7.11.1.1)

The underlying issues surrounding the human capital of Pakistani think tanks are: categories, quality, quantity, hiring, retention, training and development, work-load, flexibility, appreciation and the attachment of seniors and juniors. These are presented visually in the figure below and explained in the subsections under.

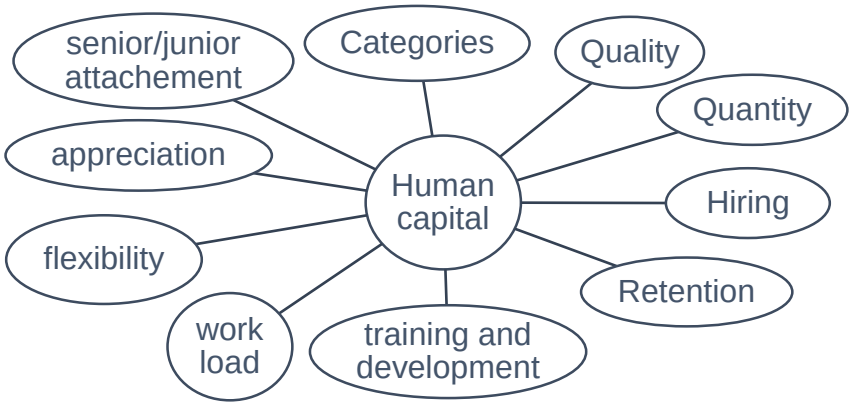


Figure 4-14 Issues around human capital in Pakistani think tanks

#### 4.6.1.1. **Categories**

The human capital of Pakistani TTs could be generally categorised as: leadership, researchers, and support staff. Detail of each category of human capital is summarised in figure below and explained in the following sub-sections.


Figure 4-15 Categories of human capital in Pakistani think tanks

##### 4.6.1.1.1. Leadership

The leadership of TTs is diverse and challenging, and vary with changes of organisational set-up. The position is mostly occupied by an experienced individual not necessarily a PhD, doctor/professor/academic possibly a researcher. There is a combination of academicians, retired army personnel, retired ambassadors, senior politicians and senators and senior researchers. These personnel mostly belong to the elite class of Pakistan within their political or governmental association.

> *"…who founded the institute, he himself had been the senator as well. …has the direct information, and he use to share"* (7.6.1.1)

A few female leaders are found in the Pakistani think tank industry, and the trend towards diversity is growing. TTs often suffer from a lack of leadership, where the position is to be allocated by the government, and the system goes with the acting post holder for years.

> *"And now-a-days we have no DG and the president is acting on the post."* (1.2.1.1)

Moreover, along with a lack of leadership, wherever the leader is in charge, may or may not have full control or receiving imbalanced information from the research and the admin wings of the organisation. Two female young discussants shared the following.

> "...the *registrar (administrative head of admin and academia) is from the research department, but our registrar is from the admin department … Now, the admin has all the power, you know, to accept or reject the decisions. Our VC is new and he receives briefings through the admin …they wouldn't let decisions been taken*." (5.7-8.1.1)

There are cases where the position has been held for decades by the same person, ruining the organisational innovation. Additionally, there have been cases where the founder member had made it a personal organisation, and the think tank identity seemed lost. It is not clear whether the TTs leadership is productive or unproductive, and there is a lack of accountability, selection criteria, tenure definitions and responsibilities. Meanwhile, in many cases, it is the individual who plays a key role securing funding and projects, opening channels with the government, and establishing some positions within the political circle. He/she actually represents the organisation, or a research point of view, at various higher forums, international conferences, and media platforms. The leader plays a key role in creating the TTs research impact or passing forward policy suggestions, whilst serving as the driver for policy suggestions.

#### 4.6.1.1.2. Researchers

The primary category of human capital of TTs is their researchers, who often have some journalistic background, and relatively fewer academic affiliations.

Approximately 20% of researchers serve as part time/visiting lecturers in a university/academic institution. Furthermore, 10% had previously served as academics and full-time lecturers at a university. Researchers are the actual output producers and it is their inner motivation and keen interest to conduct research which keeps these small organisations alive. The strength of the research staff varies from 5-50 on average, which is comparatively much less than the administrative and support staff. Among researchers, there is scarce competition in the industry, since the total human strength is less than 1000 researchers who cover narrow research areas in the Pakistani TT industry, as explained below by a researcher who worked on Pakistani think tanks.

> *"Islamabad capital territory has the largest number of researchers; 550 out of 905…Researcher numbers in think tanks need to be massively increased, with enlargement of the scope of their specialisation and new areas of concern. Career oriented facilities and security of job should be provided to accommodate researchers in various disciplines, as they dispense and deal with important national, international issues, which often point out criticism on governments or their collaborators"* (3.14.1.1)

A lack of career opportunities, focused expertise and facilities seem to be the fate of researchers in the Pakistani think tank industry. Yet, praise for the scarce resource exists for the knowledgeable researchers. An academic head described the researcher's strength as follows.

> "…*we are already very close to that (ideal) and since we have 8 fellows for this year, who are renowned, senior fellows, and who are going to be PhD's from the best universities from around the world, who are scholars*

*and people who have served in the very top positions in government, in the armed forces and the civil services*." (3.13.1.1)

A realisation of the relationship between institutional performance and human capital performance also subsists. A senior researcher claimed that

"…*if you have good staff good faculty then your institution will develop automatically*…" (5.5.1.1)

It is the worth of human capital that attracts further input. A senior researcher mentioned that

"*…basically we are established researchers. If we go anywhere in any government department they don't refuse us to give input*" (5.4.1.1)

**4.6.1.1.3. Support worker**

Non research staff are categorised as support staff in Pakistani think tanks. Approximately 10% of the category is managerial staff, usually with masters qualifications and 10-20 years of experience on average. Approximately 20% are technical workers with specialised skills, and are university graduates on average. The remainder of the support staff are more than double in number when compared to researchers, specifically in the semi-governmental organisations. They lack formal higher education, but possess vast experience and knowhow of their organisations, which makes them knowledge workers. This category is underutilised, less encouraged and under-valued, despite these organisations depending heavily on them. A senior female researcher described this as below.

*"…they are not researchers, they are not officers, but without them we can't do this (specific) work…some researchers could type…some (give) hand written,…and reading every one's handwriting! they know the*

*abbreviations, if we have wrote the names spelling wrong,…he know that have to correct it,…have been working with us since long, now they are trained."* (6.4.3.1)

Support workers of researchers are also handling knowledge intensive tasks as an administrative assistant demonstrated

"…*my work began from there, when I got a list of suggestions.…I don't have much grip on the subject matter as the researchers; if there are any questions I would defiantly ask the researchers, I have to make my mind clear that what they want to convey, so I can advocate it*." (7.14.1.1)

#### 4.6.1.2. **Quality**

The quality of human resources in Pakistani think tanks is mostly realised through the qualifications, experience, and achievements of the researchers. A senior female research department head conveyed how

*"(The institute) has trained researchers, have been working since 30, 30 years… they have the detail and depth*" (5.18.1.1)

Human capital makes a specific think tank organisation unique and is a blessing for that organisation.

*"(our) 'good luck', who the good people are we had got them,"* (7.3.3.1)

The quality of human capital in Pakistani think tanks is scrutinized on the basis of high scores in their specified qualifications, and meeting the calibre of designated posts, specifically in semi-governmental think tanks. A senior male researcher described how:

"…*our intake level is grade 17…first requirement is that candidate must be A grade, which means 80% marks. But empirically speaking all our candidates here, are all position holders in their universities*," (5.4.1.1)

Although there remains loop-holes in the scrutiny process, especially for non semi-governmental organisations, over time the reduced quality of education, society and life have deteriorated the quality of human capital. The phenomenon of brain drain has also played a major role. A retired TT leader had the following to say about human resource deterioration.

*"I was a gold medallist from X University. Likewise, other research fellows are all at least MA, and among them we had PhDs as well and for them had four years training program, including seminars etc. and regular classes for research and technology, that's all gone. Then, during the same times they sent staff abroad and I went as well."* (1.12.1.1)

One of the qualities of pure knowledge intensive workers, and in the case of think tanks specifically, is of researchers having a creative mind. A hindrance to creativity in Pakistani think tanks is that the positions are mostly taken up by people coming from a specific mind-set, blocking the way for out-of-the-box thinking. A senior civilian female researcher mentioned that:

*"Researcher is a healthy mind! being researcher is a big thing, researcher means that you are a thinking mind, a genuinely thinking mind…in Pakistan, the senior researchers are mostly retired bureaucrats or retired armed personnel" (6.4.3.1).*

#### 4.6.1.3. **Quantity**

Table 4-12 Strength of human capital

| Institute | Total staff | Researchers | Technical staff |
|---|---|---|---|
| CIPS | Up to 30 | Up to 5 | Up to 8 |
| CRSS | Up to 30 | Up to 8 | Up to 8 |
| IPS | Up to 50 | Up to 20 | Up to 15 |
| IRI | Up to 30 | Up to 10 | Up to 10 |
| IRS | Up to 53 | Up to 12 | Up to 5 |
| ISSI | Up to 80 | Up to 15 | Up to 5 |
| ISSRA | Up to 100 | Up to 8 | Up to 10 |
| PIDE | Up to 100 | 50 | Up to 25 |

Source: observations, interviews and documents

The small think tank organisations work with relatively little staff producing more output. This lack existed for all the main categories of human capital, with some exceptions where the number of support workers are more than the researchers. Table 4.11 summarises the number of staff in the participant organisations, with the number of total staff, researchers and technical workers. Ignorance and lack of resources leads to the common practice that a vacant position remains disregarded for years, specifically in the semi-governmental organisations. Two senior administration managers discussed mismanagement in keeping the appropriate number of staff.

> "*We are already understaffed. Who was senior than me chief of publication since he retired we have not hired anyone on his position. A junior publication officer than me, got retired we have not hired anyone for the post. We have only one person as typist and graphic designer, we have no back up*" (5.2-3.1.1).

Regards the imbalance of number of staff in research and admin departments a female technical worker mentioned that the

*"…research staff are few in number while the technical staff is more here."* (1.5.2.2)

#### 4.6.1.4. **Hiring**

The hiring of human capital is important in Pakistani think tanks, but they face dilemmas of leadership nepotism, designated posts, lack of resources (etc.). A senior researcher said that

"…*not like this DG sitting over here, he is hiring everybody he likes,*" (3.14.1.1)

An experienced researcher expressed his frustration about designated position as follows.

"…*for the editor, there was one post, and rather than advertise and process, one cornel, second cornel third cornel, fourth cornel , what's going on, mean to them! they say, you need a person familiar with English, listen to them, they can speak English making face, does he really knows English. All day keep hearing the sound of boots*." (4.3.1.1)

Lack of resources is another constraint making hiring more difficult in Pakistani think tanks. A research department head conveyed that:

"*then another thing comes in competition, an institution they have good money so they will grab good researchers like IBA, LUMS these, to fresh graduate, fresh PhD they are giving 2.5 lac and here to a senior person that much would not be given, so ultimately people will go to that side, where it is more attraction…you'll be having good staff, if you give them good market based salary*." (5.5.1.1)

#### 4.6.1.5. **Retention**

A consistent complaint from the participants was the retention of human capital. A senior female researcher clarified this as follows.

> "…*it is currently a spring board, people come here, looks for scholarships around, sitting over here, because we provide a wonderful atmosphere, to do re-search, actually they provide you with all the facilities, you have huge library, you have internet, you have acquired room, wonderful ambiance of the institute, you have a very supportive administration and they provide you with all the facilities, however, they cannot go beyond certain point, because they don't have funds,*" (3.1.2.1)

Pakistani think tanks are been used as training platforms. A director stated that

> *"…people came here and use it as nursery and just move on to higher platters, so it's a training nursery for lot of people" (2.13.1.1)*

With these objections of leadership, there exists a realisation among seniors that the industry is providing minimal career progression.

> *"…work of institute and promotion structure, it does not have a match… career progression again is linked with being a PhD…the people who are not able to do it for one or the other reason,…will be left…a management dilemma…then they will remain frustrated, why should they work if they don't see career for themselves"* (5.16.1.1)

The staffs have a close association with their organisations and want to remain for longer period due to the conducive environment and their research interests. The cost

of this for human capital is sacrificing facilities, personal resources and future career prospects. A young female researcher shared the following.

> "...*as I stay more I will be deepening my roots here. I have no plan to leave this organisation....I would like to strengthen my roots, stronger will be the roots more relax I would be. If I go to new organisation I have to cope with the new culture as well....I will be doing PhD and will re-join again here. I think I don't have any other option*." (5.7(-8).1.1)

Describing the association with specific work a female researcher conveyed that

> *"…due to spirit such organisations are working, otherwise what the facilities are" (6.9.1.1)*

Another female discussant explained that the younger generation is less consistent, whereas the mature generation had already proved their stamina by staying for longer tenures.

> "…*this is the difference, my father's generation people when they get retired, they feel sad. When they gave me employment card, it was mention on it 2012 to 2049, to see that literally I felt anxiety, who have seen 2049, I don't know even where would I be till 2019 though I have no intensions to quit the organisation*." (5.(7)-8.1.1)

The retention of human capital is focused on retaining the knowledge of specific personnel, although this is less realised in Pakistani think tanks. A senior manager discussed an effort of retaining the knowledge of leaving personnel as below.

> *"I try that whoever is leaving…will share their experience. An exclusive session would be done." (7.3.1.2)*

#### 4.6.1.6. **Training and development**

A reason for the low retention of human capital in Pakistani think tanks is a lack of training and development. An ex-head of a TT revealed that

> *"…they are doing research with their personal concern but they had no training."* (1.12.1.1)

A female researcher described this as follows.

> "*Ideally it would have been good if the institute fund my PhD…why people go abroad, why do they apply to foreign research institutes because they give them that space to develop you know that freedom to excel and they give them those facilities what we don't provide here. So I think there is a lot of work to be done, not just restructuring but defining what the role of the researcher is*." (3.20.1.1)

However, in the opinion of the management, they manage the talent and provide development opportunities. A young researcher clarified that:

> "*If one person is not giving response then his assignment is changed, again changed, to check might something suits him, kind of job rotation, reshuffling the task*." (5.1.3.2)

Based on the above it should not be perceived that job rotation could serve as an alternate for training and development. Considering this sensitivity, it cannot be denied that these organisations are providing a nurturing environment to pursue higher education. A senior researcher said that he

> "*…joined masters, and did my MPhil during job, now will be doing PhD*." (5.13.1.2)

An experienced support worker stated,

> "*…many people came on lower position here then become doctor on scholarship....3-4 people came here as peon, they were under matric, then getting into the environment they studied and even had reached on grade 15-16 as well*" (5.17.1.2)

A senior admin manager mentioned,

> "*who the staff is, its training, its orientation, its development, on that as much attention we need to pay, are not paying that, this is, what needs to be strengthened, our institute is of that type that it needs to be much more" (7.3.3.1)*

#### 4.6.1.7. **Work *load***

A motivated researcher will have the urge to continue to write. However, organisations are understaffed and individuals are assigned with multiple jobs and positions. An academic and researcher said

> "*I need to write more, but as here there is administrative work load as well*" (8.1.1.1)

#### *4.6.1.8.* ***Flexibility***

Researchers in Pakistani think tanks enjoy flexibility, as they are not bound with organisational restrictions, with some exceptions. These flexibilities are related to time, work, style and reporting. An attempt to overrule this flexibility, possibly due to leadership weakness, professional and management team conflicts, or inappropriate management rules, disturbs the organisational environment.

> *"…it depends that who is with me, who is co-author, so with you there is space, it is not that you have to come typically as like office, have to do*

*office work, that's it, it's not like that. So, you can do your own work as well*" (5.1.1.1)

#### *4.6.1.9.* ***Appreciation***

An appreciation of the knowledge worker's view provides them with satisfaction. A researcher stated that a

"*Publication gives recognition....Another incentive is to provide conference participation, for example, present at SAARC (South Asian Association of Regional Cooperation platform*." (5.1.3.2)

In a further discussion he mentioned,

*"…gains are in two ways, one is which is my personal gain,…I know my promotion will be approved when I had prepared 4-6 articles…I will be surely doing it that well my paper will get published so I get promotion. Secondly,…the assigned duty you have to do that…third is, foreign funded projects in that monitory gain comes to you…fourth is our periodicals, these are counted for your promotion, annual credential report counts it as well*" (5.1.1.1)

#### 4.6.1.10. **Attachment of seniors and juniors**

An experienced female researcher explained,

"…*attach one junior researcher with one senior researcher, they should couple it up so that experience, and fresh thought can work together …grooming of the academics over here. Regardless of their qualification from within the country or outside the country…research does not borrow*

*itself to age, it's not essential that if you are young…anybody who would have a passion to do research*" (3.1.2.1)

### 4.6.2. **Structural capital**

The structural capital of Pakistani TTs reflects a variation in different categories, though in general it remains weak. Structural capital directly relates to financial resources, for which there are issues in obtaining. Negligible concern for donor bodies, a lack of funds, and weak fund allocation structure leaves the organisations in a devastating scenario. In general, university-based think tanks are better off, since in general they share the infrastructure of the university. Approx. 25% think tanks have specified buildings, and there are examples of institutes with a state of the art physical infrastructure. However, the governmental institutes are extremely suffering due to ignorance and this has impact on their operations and outcomes as result.

"*Its resources declined, its identity is lost, it became part of university and universities bureaucracy grabbed its resources…its building, ended its budget, it had a huge land property which was seized*" (1.17.1.1)

Four main sub-divisions of structural capital in Pakistani think tanks are libraries, financial capital, physical capital and technological capitals. These are discussed in the sub-sections below.

#### 4.6.2.1. **Libraries**

A lack of structure concluded in a massive knowledge loss; specifically the explicit knowledge within libraries.

*"For libraries! First thing is we lack space...it's only a room, we have placed some shelves outside, some in other rooms...see we have placed*

*all shelves upon each other, all shelf's are completely packed/full."*

(6.5.1.1)

Among the structural capital of Pakistani TT's, libraries are one of their biggest knowledge assets, and special consideration has been paid to them. Libraries also face the financial constraints but usually remain a priority. These libraries have proven their worth as being unique on a specified subject, and a few libraries possess global value. Physical libraries are the prominent factor, but concurrently, in this technological era, they lag behind in e-libraries. They are still at the nascent stages of implementing library software and linking their libraries online. Only a few institutes have access to resources of the higher education commission and access to online journals and databases are limited. The reason behind this is (again) that a subscription to these resources requires financial input, which they lack.

Table 4.13 presents a summary of some of the features of participant institutions' libraries. Although, libraries are suffering more, due to a financial lack, there are other aspects that have an impact on the use of libraries. A technological shift has reduced the need for physical access, and reduced interest in book reading habits through the introduction of e-resources/e-books. Although they are limited, some institutes do have e-resources such as Jstore, provided by the higher education commission.

A director mentioned how

"…*research facilities, means library, online resources, guidance*"

(7.1.2.1)

The knowledge management's relationship with library science and the role of higher education institutions to manage knowledge is creeping in to raise their image. Each

think tank has own library and a librarian-who struggle with several material limitations, and each has particular version of KM.

Table 4-13 Profile of Pakistani think tanks libraries

| Institute | Public library | Space | Number of books | Library software | Document section/clippings | Speciality |
|---|---|---|---|---|---|---|
| CIPS | Limited access | Fair | About 2600 | Fair | Fair | Defence and peace studies |
| CRSS | No | no | Nil | no | Fair | Crisis recorder |
| IPS | Yes | Good | - | Good | Fair | international relations/Islamic Faith/Economic |
| IRI | Yes | Excellent | 180k books | Excellent | Good | Islamic Studies |
| IRS | Yes | Poor | 10k+, Acquiring 93 Journals | Fair | Excellent /distinct | India/central Asia |
| ISSI | Yes | Good | 14k+ books, about 100 Journals | Fair | Good | Foreign Affairs |
| ISSRA | Limited access | Excellent | 70k+ (common with NDU) | Excellent | Good | Defence and security studies |
| PIDE | Yes | Fair | 40k+, Acquiring 140 Journals | Good | Fair | Economics and national planning depository library for the Asian Development Bank (ADB); International Development Research Center (IDRC); International Labor Office (ILO) and the World Bank. |

Source: Observations, interviews and institutional websites

#### 4.6.2.2. **Financial capital**

Table 4-14 Types of funding of participant organisations

| Institute | Type of Funding | Publications sale income | Other income sources |
|---|---|---|---|
| CIPS | University allocated budget (through HEC) (governments) | Nil | Nil |
| CRSS | Foreign funding | nil | Nil |
| IPS | Endowments and donations | Subscriptions and sales | Events rental, guest residence income |
| IRI | University allocated budget (governments) | Subscriptions and sales | Press |
| IRS | Ministry of information allocated budget (governments) | Subscriptions | nil |
| ISSI | ministry of foreign affair allocated budget (governments) | Subscriptions | Nil |
| ISSRA | Ministry of Defence and Higher education commission through university (governments) | Subscriptions and sales | Nil |
| PIDE | Planning commission and Higher education commission | Subscriptions | Income as university |

Source: Interviews, observations and documents (websites of the institutes)

No matter which category a think tank belongs to, the struggle for financial resources remains. Due to a dearth of research environment in Pakistan, ignorance prevails, which in turn creates a gap for research funding as expressed by an interviewee

"…*Nobody gives funding for research*…" (2.6.1.1)

Table 4.13 presents the type of funding used by participant organisations. None of the participant organisations are sufficiently generating funds, and they lack profit-making motives. The financial struggle remains primary for Pakistani TT's. Many research participants have classed it as the biggest problem, and in fact, many of the present issues have their roots in financial constraints. For example, if they had funds, they

could hire superior human capital, better structural capital, spend more on their promotion and knowledge dissemination, could plan development programs for their personnel, and provide them increased exposure. A few are satisfied with the conditions and rather than complaining, they appreciated their survival in the circumstances of a developing, but rich nation. A senior researcher mentioned,

> "*People might be telling you! (funding) not sufficient, but you know its running since 1973. And it has a number of…researchers employed and more than 20 people you know working in other fields, administrative jobs, so this comes from national budget…I mean if you say that's the case then the whole educational sector in Pakistan is facing number of financial problem*." (3.14.1.1)

Another senior researcher stated,

> "*…if they (employees) are worried about their children, school fee, boarding lodging, if they worry about small things then how can they think. To produce Intellectual output…you have to give them good salary…we have a problem of financial resources*" (5.5.1.1)

*A female senior researcher demanded that*

> *"…it should be focused, on a research agenda, on human capital, there should be good focus, on management of resources, major resources chunk should be going to researchers and research would not pay all the administrative staff, and building and then after that there should be good focus on advocacy,*" (5.15.1.1)

#### 4.6.2.3. **Physical capital**

Table 4.15 presents the summary of the participant organisation's physical infrastructure, showing the variety of nature. The primary question is: what is the extent of the impact of the different physical capitals on the organisations outcome. A young female researcher expressed her frustration as

> "*One big issue is we have space issue,…If you are sharing same room, people are coming, after 15 minutes 10 minutes someone is coming, what's this non sense,…(for) researcher this is annoying*." (5.7(-8).1.1)

On the other hand, a senior male researcher prioritised that

> "…*institutions develop with professionals. Building-equipment does matter, but does not matter as like the staff*" (5.5.1.1).

A research department head described it as matter of reputation that

> "…*weak point from an organisational point of view,…it have big name, building is ours but the land is of X university*" (5.9.1.1)

Furthermore, an operating director linked it with the outcome that

> "…*this makes (think tank name) distinct from many other institutes, that with us a reasonable (physical) infrastructure is…using it, our research activities in both quantity and quality could be better"* (7.1.2.1)

Table 4-15 Summary of physical infrastructure of participant organisations

| Institute | Detail of buildings they are residing in | | | | | |
|---|---|---|---|---|---|---|
| | Nature of tenancy | State of the building | Level of maintenance | Library space | Seminar hall capacity | State of offices |
| CIPS | University allocated | Good | High | Fair | Large – custom build | Fair |
| CRSS | Rented | Fair | High | No allocated space | Small | Fair |
| IPS | Owned | Very good | High | Good | Medium (common with library) | Good |
| IRI | University allocated | Fair | Low | Very good | Large – custom build (common for other university-based institutes) | Fair |
| IRS | Rented | Poor | Low | Poor | Small | Poor |
| ISSI | Owned/government allocated | Fair | Average | Good | Medium (common with library) | Fair |
| ISSRA | University allocated | Very good | High | Very good | Medium | Fair |
| PIDE | Undetermined – land is owned by the university but the institute constructed the building. Legal complication involved | Fair | Average | Fair | Small | Poor |

Source: developed for the study through the researcher's and participants perception

4.6.2.4. **Technological capital**

The technological infrastructure of the case organisations is generally composed of computers, a local area network, basic internet, email facility, a website, intercommunication telephone network, a projector, casual printing, special printing

(only with IRI), attendance monitoring (only with PIDE) etc. A summary of the technological resources are given in table 4.16 below.

Table 4-16 Summary of technological infrastructure

| Institute | Details of technological infrastructure | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Computers | Computer server | LAN | Internet | Email server | Website | Telephone network | Projector | Casual printing | Specialities |
| CIPS | Fair | | Yes | Fair | University's | University's | Yes | Yes | | |
| CRSS | Fair | No | | Limited | | Yes | Yes | Yes | Limited | Radio |
| IPS | Good | Good | Yes | Good | Yes | Yes | Yes | Yes | Good | |
| IRI | Fair | | Poor | Limited | University's | University's | Yes | | Fair | Printing press |
| IRS | Poor | | Poor | Limited | | Yes | Yes | Yes | Fair | |
| ISSI | Fair | No | Yes | Limited | Yes | Yes | Yes | Yes | limited | |
| ISSRA | Fair | | Yes | Fair | University's | University's | Yes | Yes | Fair | |
| PIDE | Fair | Good | Yes | Fair | yes | Yes | Yes | Yes | Good | Attendance monitoring Machine. Special statistical/ economics software |

Source: Interviews and observations

Pakistani think tanks have a basic technological infrastructure to support their formal activities of knowledge management. A limited availability of these resources and the less friendly nature of technological shifts in their organisational culture could be a reason for the lack of formal knowledge management activity. For the technical support staff, the needs are related to IT infrastructure,

*"(needs are) equipment, fixed assets, good Computer, printer, telephone… even clerical staff have good PCs, Internet facilities*" (5.2-3.1.1)

The IT infrastructure of Pakistani TTs is advancing at a good pace but their know-how and efforts result in an endless wish-list, as explained below by a technical member.

"*There are things that we want to get done, e.g., in relevance to library we are working on digitization and we are also working on databases. Some commercial database which are good and used on international level and are used in economics institutes…We are in process of that purchase*" (5.2-3.1.1)

In general, there is satisfaction in relation to the existing technological infrastructure, as he further suggests below

"*As compared to other organisations in Islamabad our IT setup is much good. It's comparable to corporate organisation*." (5.2-3.1.1)

Pakistani think tanks are a little behind in the use of social media, but an awareness is increasing, and the younger generation is comfortable with its use. A young manager mentioned,

"*It's a generation gap that Facebook is not in use. Web is also managed by (umbrella institution)."* (4.9.2.2)

For one young female researcher, no other physical infrastructure is required but a computer with internet.

"*…no infrastructure is required, sitting at home, laptop and internet basis you could do that work*" (7.4.3.1).

The institutes working under an umbrella institution may have a common IT infrastructure and their websites may also be under control of the institute. The IT infrastructure of Pakistani think tanks is not much different than any other small organisation of a developing country. Basic computer hardware and a basic level of software is appropriate to them. Occasionally, customised software is in use in some specialised organisations. A basic LAN, along with a small server forms the basis of their IT infrastructure. Along that minimum level of technological presence, there are also some exceptions, which include the presence of a whole printing press in one institution.

### 4.6.3. **Relational capital**

Pakistani think tanks may lack structural capital but motivation and the social nature of limited human capital provides it with healthy relational capital. Both work streams (research events and publications) of these institutes are strongly linked with their relational capital. Research events are more closely woven into their relational capital, since they would not be possible if the relationships lacked. Each of the surveyed think tanks had a list of the potential audience as one of their most important databases. This database remains in their priority list and is used for each research event. Each research seminar capitalises on the basis of these databases, and is enhanced at the end of the research event. A key criterion for the success of the event is a calculation of the number of participants and enhanced relational capital. This database is also used to disseminate their work, and is actually is first point of contact for the outside stakeholders. Another dimension of the relational capital is relatively internal and relates more to the direct production of knowledge. It covers the second work

dimension of think tanks, i.e. research publications. Collegial interaction is required to convert an idea into publication, and this is facilitated by the think tanks.

An institutional head explained a reason which have penetration in the culture surrounding these think tanks,

> *"...In Islamic history societies are organised into communities and neighbourhoods,...Masjid's are where people get together five times a day, that supposed to create a community which does interact,..."* (5.14.1.1)

Relational capital of Pakistani think tanks could be categorised two three forms as presented in the diagram below.

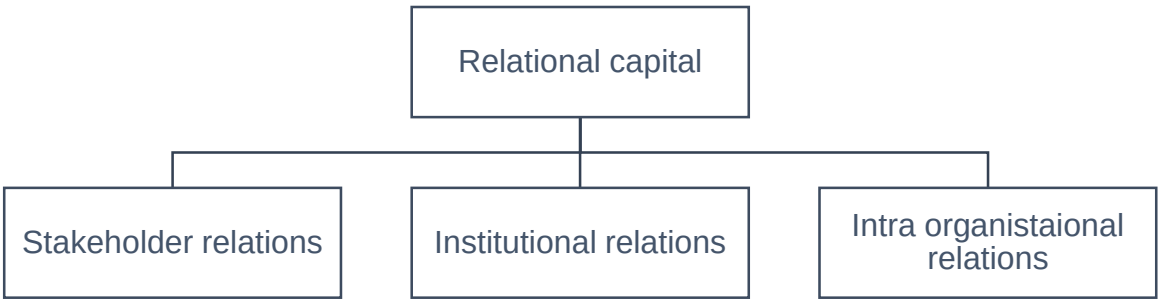


Figure 4-16 Categories of relational capital in Pakistani think tanks

#### 4.6.3.1. **Stakeholders relations**

Distinct group of stakeholders may present unique relational capital, and concludes in a varied impact. For example, the relationship between the institute and the members and governmental members, committees, ministries (etc.) could have a direct impact on national policies and the policy making process. However, the relationships between the informed community, students, academics and researchers are shaping the opinion makers and potential future policy makers. This relationship also provides

input in terms of first-hand knowledge and inculcates it into their research, which is ultimately reaching to the policy makers. In actuality it is this relational capital that is bridging the state and society.

A retired head a think tank recalled about the past interaction with foreign academics

> *"…many senior foreign scholars and foreign faculty persons and researchers use to come here"* (1.12.1.1).

#### 4.6.3.2. **Institutional relations**

Another prominent relational capital is the institutional links which result in collaborative efforts, hence having direct impact on their increased and enhanced output. An area, which caught attention of think tank organisations, which they consider valuable, is their MoUs with national and international organisations. Through collaborations they gain a range of benefits, including hosting delegates, arranging guest lectures of internationally renounced subject experts, arranging conferences, seminars, workshops, symposium, conducting joint research study programs, cultural understanding, and gaining first-hand knowledge of the areas and situations where access is difficult.

An institutes head indicated about the collaboration with think tanks, that

> "…*we collaborate with international think tanks and foundations for holding seminars and conferences. We have senior fellowship programs in collaboration with X foundation*." (3.13.1.1)

Table 4-17 Institutional collaborations

| Institute | International collaborations | National collaborations |
|---|---|---|
| CIPS | German UN Peacekeeping Centre, International Association of Peacekeeping Training Centres (IAPTC), Association of Asia Pacific Peacekeeping Training Centres (AAPTC), Ex Viking 14, Challenges Forum. United Nations Department of Peacekeeping Operations (UNDPKO) International Committee of the Red Cross (ICRC)<br>Sandia National Laboratories (SNL)<br>Peacekeeping and Stability Operations Institute (PKSOI), U.S. Army College.<br>HannsSeidel Foundation (HSF)<br>George Mason University, US., South Asian University (SAU), Folke Bernadotte Academy (FBA), The National Institute for Defence Studies (NIDS), Japan | Institute For Strategic Studies, Research and Analysis (ISSRA), NDU Pakistan.<br>British Council Pakistan<br>ISSRA (NDU, Pakistan) |
| CRSS | Heinrich Böll Stiftung, United States Institute of Peace, The Asia Foundation, InterNews, Governance Institutes Network International, Peace Education and Development Foundation | Pakistan Broadcasting Corporation, Association for Integrated Development (AID) – Quetta |
| IPS | Islamic Development Bank; International Institute of Islamic Thought (IIIT), USA; Chinese Association for International Understanding (CAFIU), China; International Centre for Religion and Diplomacy (ICRD), USA; Islamic Foundation, UK; Norwegian Church Aid (NCA); Institute of South Asian Studies, Sichuan University, Chengdu, China; Hartford Seminary, USA; The Henry L. Stimson Centre, USA; Hanns Seidel Foundation, Germany; Konard Adaneur (KA) and Friedrich Ebert Stiftung, Germany; Madina Trust, UK and the Institute of Political and International Studies, Iran | Universities of Peshawer and Punjab; University of Management Sciences (UMT) Lahore; National Institute of Public Administration (NIPA); International Islamic University (IIU) Islamabad and Da'wah Academy; Allama Iqbal Open university (AIOU) Islamabad; Riphah International University, Islamabad; World of Islam Trust, Institute of Strategic Studies (ISS) Islamabad; Chambers of Commerce and Industries of Peshawar, Gujranwala, Rawalpindi and Gujrat |
| IRI | Alexandria library, Egypt (1.3.2.1) | "sometimes we collaborate with other organisations" (1.11.1.1) |

| | | |
|---|---|---|
| | "…likewise with the organisation outside Pakistan, we have certain types of collaborations." (1.3.2.1) | |
| IRS | Publications exchange Program with institutes in the United States, Australia, Bangladesh, Canada, China, India, Nepal, Sri Lanka, West Asian and Southeast Asian countries, Japan, United Kingdom, France, Germany, Russian Federation, and other major European countries. (IRS, 2014) | "We never think of them (other think tanks) as competitors rather collaborators" (6.15.1.1) |
| ISSI | Holds 30 MoUs with research organisations worldwide, for example, Hennsiedel foundation, IPIS Iran. | |
| ISSRA | Collaboration in 56 countries | |
| PIDE | World Bank, ADB, UNDP, UNICEF, IDRC, DFID, CEDA, etc. "Collaborations they do with international organisations like united nation's there it is in Thailand Arptnet etc. with them and with many other organisations in Japan etc." (5.22.1.1) | Higher Education commission, Pakistan |

Source: Institutes websites, interviews, observations and documents

A young female researcher mentioned it on more formal basis,

> "…*we are undergoing MoUs, signing MoUs with different TTs internationally, this is, with Austrian think tanks, Chinese think tanks you name it we got it*…" (4.2-4.1.2)

Explaining further with bilateral link, a female researcher stated,

> *"It collaborates with other think tanks in parts of the world and with whom they have MoU's…We also do Bilateral Dialogue, for example, with IPIS, Iran. Every year we have a bilateral dialogue and also we bear the expense and they also invite us and when they invite they bear the expenses….Before that we also had Pak-German Dialogue*" (3.22.1.1)

She further expressed the need for

"*…cooperation with other Government institutes in some ways*." (3.22.1.1)

An experienced manager considered an outcome other than seminars and conferences and said

*"...institutional linkage in form of exchange (of publications)*" (3.6.1.1).

A senior researcher related relational capital with organisational impact:

*"(Impact) is judged by inter-institutional dialogue, this is a process that we have instituted an interactive meeting with various think tanks within Islamabad*." (3.8.1.1)

This relationship forms the way for knowledge sharing; a foreign qualified female research stated that:

"…*we have delegations, think tanks from China, Nepal, Bangladesh (etc.), so like that synergy is present, transnational information flow is happening between TT"s*" (6.13.1.1)

The impact of relational capital is not only on the think tank's outcome, it could also have role in the formation of a think tank. As a founding director mentioned,

*"I had no intention of getting into this sector, I even never had a thought of it, I had a working lunch with the vice president of the (name of foreign institute) in March 2007…she said why don't you channelise your thinking…why don't you set up an institution…I said! well how can I do that I am a working journalist I don't have money for that I had never thought of it, then she said well we can help you if you do something"* (2.13.1.1)

A senior researcher demanded an extended outreach that,

> "*TT's should seek more fellowships and scholarship offered by leading TTs and worldwide universities, and participate in international conferences, seminar, workshops and meetings to get exposure to the intellectual environment of research bodies abroad.…TT's should maintain contact with print and electronic media,…There should be frequent collaboration between the national institutions and the international think tanks organisations*" (3.14.1.1)

There is no formal network of TTs in Pakistan, but several think tanks are informally connected. More than their competitors, these institutes are viewed as collaborators and conduct numerous joint collaborations and publications. In fact, there are a limited numbers of people attached to Pakistan's think tank industry, and they work under different organisations.

#### 4.6.3.3. **Intra organisational relations**

The most important form of relational capital, which directly affects the performance as well as the strategy of a think tank, is the relationship of its team. A female researcher offered the following point of view.

> "*It's team work, basically…Research is team work, all of the colleagues, we use to help each other…on certain level we are assigned collectively, there comes the team works in conferences… We are doing independent research and we have our own particular area to each researcher but research can't be independent we have to work in collaboration."* (3.21.1.1)

A senior management person explained that trust is required in this relationship as follows.

> *"…he (junior support staff) know that the person (senior manager) who had given that trust to me"* (5.21.1.1)

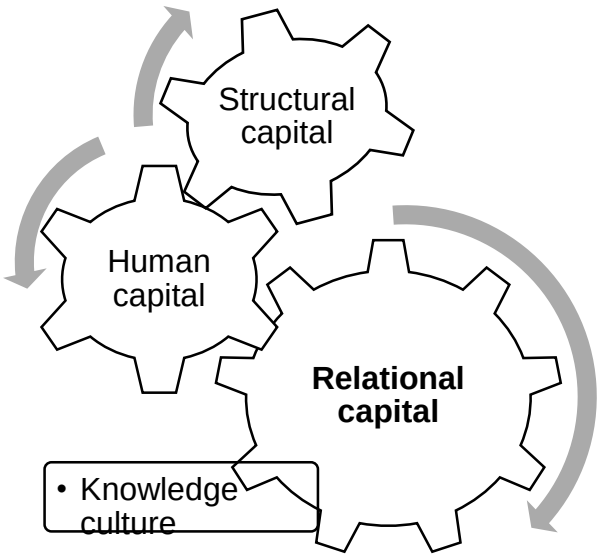


Figure 4-17 Knowledge management enablers in Pakistani think tanks

The relationship between the members of think tanks creates a conducive environment-a wealthy knowledge resource, hence establishing a knowledge culture. Figure 4.17 presents a summary of three knowledge management enablers in Pakistani think tanks, according to their weight. Although, the three enablers are strongly connected, but vary to contribute for organisational performance.

## 4.7. Relationship of knowledge management, organisational strategy, organisational performance

The findings confirm that the relationship between OS, KM and OP lies in a continuous cycle, i.e. all three need continuous adjustment in regards to each other in the present ever-changing world. An organisation that wants to achieve its goals must consider

and manage the knowledge (i.e. an organisational journey which starts from OS to reach OP needs to be accompanied by KM). This triad relationship becomes more important when the organisation is of a knowledge intensive nature and is further important when the organisation is a TT - a bridge between the state and society. The section below analyses the findings on OS-KM, OP-KM and OS-KM-OP subsequently.

### 4.7.1. **Organisational strategy and knowledge management**

The general objectives of Pakistani think tanks are to conduct research in subjects related to public policy. Pakistani social sciences TT organisations mostly define their subject scope in relevance to national interests. The subjects provide a foundation for public policy, including national security policy, national economic policy, and foreign policy. However, the direct impact of the research on public policy is a question that is rarely considered as an element of the TTs objectives. However, with the changing times, the inclusion/exclusion of subjects is a continuous process. Through developments on issues under the TTs scope and subjects, the agenda continuously develops. Usually, the scope is defined for 2-3 years, through nominated advisory boards. Within the scope definition, they mostly have 2-3 subjects following specified dimensions, and a researcher dedicated to each sub-division who usually works under one senior member. Due to the overlapping nature of subjects, the closeness of the sub-subjects and the limitations of HC, usually one single researcher overlook multiple sub-subjects. Although, there is no hard and fast rule, organisations remain project based, which includes several forms of products and services. Their objectives are generally achieved by planning two streams of work, i.e. publications and research events. Publications could be realised in the form of books, journals, journal papers, news articles, reports, briefs, monographs, pamphlets, online articles, etc. Research

events mostly take the shape of seminars, conferences, workshops, symposiums, briefings, lectures, trainings, media participation. The various forms of a product and working styles depend on the nature of the project, participants/collaborators, sponsors and beneficiaries. Some organisations get involved in associated activities, such as teaching, consultancy and awareness raising campaigns.

Factors that influence organisational strategy are knowledge resources, KM enablers and processes, and the external environment. Leadership influence on the strategy is vital, and Pakistani TTs are often single individual lead organisations, serving and portraying their interests. Evolving scenarios also have a wide impact in shaping an institute's strategy. Research interests continuously change with the developments in the context of their, world view and research in the field. Pakistani TTs adjust their strategy as per the availability of KRs and KM enablers. For example, if they found certain experts on a subject, they plan related studies/programs, or, if they receive funding for some specific project, only then they could plan for it, or if they have budget for printing only, then they could publish and distribute their publications. A relevant example is that a case organisation does not hold seminars for this period due to a lack of space for this purpose, although they may have other relevant capabilities.

An ambiguity innate in their strategy is a lack of policy orientation. If they possess the title of think tank, then should have a policy orientation, but many interviewees denounced this status and perceive their institute as an academic institute, despite there being institutes with less academic orientation who are more NGO-tic, and plays their role as an activist organisation. This is also backed up with the latent wish to have say in policy making process. An experienced researcher said that

"...*we try to provide with the, information needed to make and to decide what policies should be supported, and what should not*." (5.14.1.1)

### 4.7.2. **Organisational performance and knowledge management**

Following section is divided into three sub-sections, discussing about the performance measurement, output of the Pakistani think tanks and their performance, and personnel and their performance.

#### 4.7.2.1. **Performance measurement**

Weak organisational management, complicated knowledge intensive structure, loose hierarchy, and informal processes leave a good margin to develop strategies of organisational performance. Rather than possessing hard and fast procedures to measure OP, Pakistani think tanks generally operates on 'rule of thumbs'.

"*This is a standard and dominant myth that you have to measure in order to improve, but there are a few things that are basically fundamentally qualitative! Power of belief can't be measured*" (5.14.1.1)

A dominant belief, negates the management of knowledge and hence the measurement of performance. A concept, that 'ideas have their own wheels' (7.3.3.1) impacts over time. The impact is continuous and hence difficult to calculate at particular time. Thinking on a micro level, they consider their influence and impact on an individual through the knowledge they deliver and the changes that individual will bring.

#### 4.7.2.2. **Output and performance**

An organisation's continuous existence is seen as a success by the members, who receive further work, stakeholders and receive feedback from guests, which makes

them feel successful. A general perception for organisational performance on the micro level is given below:

- For publications:
    - Publications sales.
    - Number of publication subscriptions.
    - Journal recognition by higher education commission.
    - Number of citations in foreign publication.
- For events:
    - Number of participants and the presence of high profile participants.
    - Number of audience members.
    - Level of discussion.
    - Networking activities followed by the event.
    - Media coverage.
- Miscellaneous:
    - Number of contacts in the database.
    - Feedback received on research, events and publication.
    - Website visits.
    - Number of social media followers.

Only a few think tanks' journals are recognised by the Higher education commission, Pakistan. The number of followers on social media is a recent inclusion in the above list. They feel privileged to receive foreign citations. Organisational performance would again be considered as the performance of two work streams; that is, publications and events. For a publication they consider and discuss the citations but the weak academic structure fails to record this value. A limitation here is the necessity to use

multiple languages. English publications may have some record of citations, but Urdu and other local languages are left behind in the race, since the relevant systems are still in their early stages. They feel privileged if their publication is being used at higher education institutions or by civil services candidates. They come to know about the usage through personal interactions or through direct feedback. For major events, they take formal feedback from the audience, usually through a form with evaluation questions.

#### 4.7.2.3. **Personnel and performance**

In 70% of think tanks, a formal procedure of Annual Confidential Reports (ACR) is considered to record personnel performance and is used synonymously with organisational performance. The authenticity and implementation of the system is in question and is heavily controlled by a sole leader. Half of the participant TTs use similar ACR pattern to record personnel performance, other than researchers. Almost no other dimension of performance measurement has been considered in Pakistani TT's. A female researcher mentioned that

> "…*research associate's performance is judged on many grounds but basically our research that we are producing and the quality of input that we are providing plus our personnel qualifications the steady way that they are making improvements*…" (4.12.2.1)

Pakistani think tanks feel privileged to say that their policy suggestions were considered by the government, discussed in parliaments and are used to make policies. However, the relevant record with respect to suggestions and their role played in policy making is unavailable. In such situation, it is more cumbersome to pursue the policies and provide further suggestions. A senior researcher claimed

"…*regularity and quality of a publication also helps in keeping think tanks active and receiving recognition among research circles nationally and internationally, so over all, its not about only publication. Pakistan's think tanks have no recognition abroad."* (3.14.1.1)

### 4.7.3. Knowledge management, organisational strategy and organisational performance

Naturally, social sciences policy think tanks are supposed to conduct knowledge management of state and society, i.e. by serving as a knowledge link between state and society. They are supposed to synthesise society's knowledge and suggest the state how to incorporate new knowledge and/or change. This is even applicable to multiple think tanks as an experienced researcher added the below.

"*It is by no means a guarantee that research will not overlap, of course it will overlap. So many organisations working on the same thing…all organisations would have their particular approach to the same issue*." (3.8.1.1)

The knowledge management of a think tank begins with the inception of an institute's formation of an idea and leads to continuous existence. The process from an idea to the development of a formal organisational strategy is highly knowledge intensive and requires vigilant KM. Collaboration between knowledge workers in conducting policy research is itself a highly knowledge intensive task, and requires both formal and informal KM. An OS is not static; rather it continuously changes with the developing scenario and requires updated knowledge for appropriate adjustments. An OS defines the goals of the knowledge organisation and chases organisational performance to measure the achievement of the defined targets. It remains as an atom, where the

nucleus is KM and organisational strategy and performance revolves around in the same orbit. It is power of the nucleus keeping the particles in the outer orbit, revolving in a balanced manner.

Almost no attention has been paid from the government to formalise these important organisational structures. In the higher education sector, these organisations are not given the due consideration. Although, the history of Pakistani TTs moves in parallel with the country's history, it has remained ignored for almost two to three decades when the need and trend for a 'centre for excellence' has grown, where the wave concluded in the development of a few area study centres a few of these are still continuing as TT's. A lack of TTs network and recognition of authority and/or public value of these organisations, is the primary cause of resistance for knowledge management in the society and state. These small organisations usually work in an independent and non-profit basis.

Knowledge management in Pakistani think tanks is seldom considered a formal process and no formal KM program/system has been implemented. No personnel have been designated in relation to KM tasks. Furthermore, research management and IT management are basic in structure. The closest term to the nature of KM commonly used in Pakistani TTs is research coordination, which encompassed more than projects, databases and information management. A researcher is the key knowledge intensive worker and actually manages knowledge, which commonly moves in parallel streams of knowledge creation, sharing and recording. Where, support workers are also knowledge workers and even the front line labour becomes knowledgeable within the knowledge community.

Both primary work streams-research publications and events utilise the processes of knowledge management. The streams are engrossed by the knowledge workers by making use of their tacit knowledge with different intensities of the sub-processes. In publications, a focus on knowledge processes remains more closely associated with the researcher, whilst in research events, the tacit activity remains high, but in limited groups and is later converted into the explicit. For events, dissemination occurs simultaneously, whilst publications are disseminated after completion of the research process. Both work streams are highly knowledge intensive and are only completed if there is some KM being conducted. Furthermore, improved KM results in higher quality of knowledge products i.e. publications and events. Knowledge intensive work streams are highly dependent on the knowledge workers involved and their relationships. Pakistani TTs are weak at knowledge dissemination but recently at attention to this has increased. With improved dissemination, the performance and impact will be enhanced, requiring adjustments in the strategy.

Proof of the existence of knowledge management in these organisations is reflected by the organisational learning which they capitalise on. The level of informal learning is high in Pakistani think tanks and moving on a ripple effect. The development of a worker from the most basic level to the highest rank of a research is a common story within Pakistani TT's. Learning remains a common attraction of these organisations, which keeps the HC and thus, enhances the RC no matter how limited these material resources are. A desire to acquire knowledge is keeping these organisations alive and keeping the knowledge workers satisfied in their work.

Organisations are not isolated, but exist within society, and are only be useful if their products/services are reaching to their audience. This becomes more important for

knowledge intensive organisations, since they have to disseminate their produced knowledge; they have to create awareness about what the organisation is doing to expand their market.

> "A*ny organisation, whatever its work is, whatever services they are providing, has to reach out to people. People have to know what the organisation is all about. So without outreach, it is the mouth of the organisation, and without it you can't tell who you are*" (7.14.1.1)

Think tanks are producing knowledge acquiring data and performing information intensive tasks. A question may arise on the quality and quantity of their production but they are certainly managing knowledge intensive activities. A gap exists for an organised/formal KM process in Pakistani TT's, but the informal nature and HC relations constitutes their performance and supports them in attaining their strategy. KM is strengthening the continuous revival of OS and OP. With improved knowledge, OS and OP adjust accordingly in a continuous manner, as each passing moment enhances the experience of the knowledge base.

## 4.8. **Chapter summary**

The findings confirm that the relationship of OS, KM and OP lies in a continuous cycle, i.e. all three need continuous adjustment in regards to each other in this fast changing world. An organisation that wants to achieve the motives must consider and manage the knowledge (i.e. an organisational journey which starts from OS to reach OP needs to be accompanied by KM). This triad relationship becomes more important when the organisation is of a knowledge intensive nature and is further important when the organisation is a TT – a provider of knowledge services that play the role of bridge between state and society. Knowledge resources can be considered more important

than material resources. In Pakistani TT's, prominent KRs are their (1) cultural values and norms, (2) multi-lingual skills, and (3) knowledgeable leadership, and (4) conducive environment. Furthermore, (1) KM is a natural process and independent of the awareness and/or explicit implementation, (2) KM is the energy centre, which gives an answer to the 'How' between OS and OP. Relational capital is of most importance in Pakistani TT's, forming their knowledge culture. Strong informal KM practices mostly based on personalisation strategy of KM are found in Pakistani TT's, making good use of tacit knowledge.

Pakistani think tanks that are struggling for material resources are ignorant of the intangible resources upon which their performance is based. The most important need is to value the intellectual resources they possess and develop a careful system to retain and utilise those resources. The intangible capital of cultural norms and values, multiple language skills, conducive environment and national spirit is their strength. There is a high demand for knowledgeable leadership within these organisations, with a focus on the management of their intangible resources. Fulfilling the present gaps of strategy, performance and KM could turn these organisations into effective bodies to serve as bridge between the state and society.

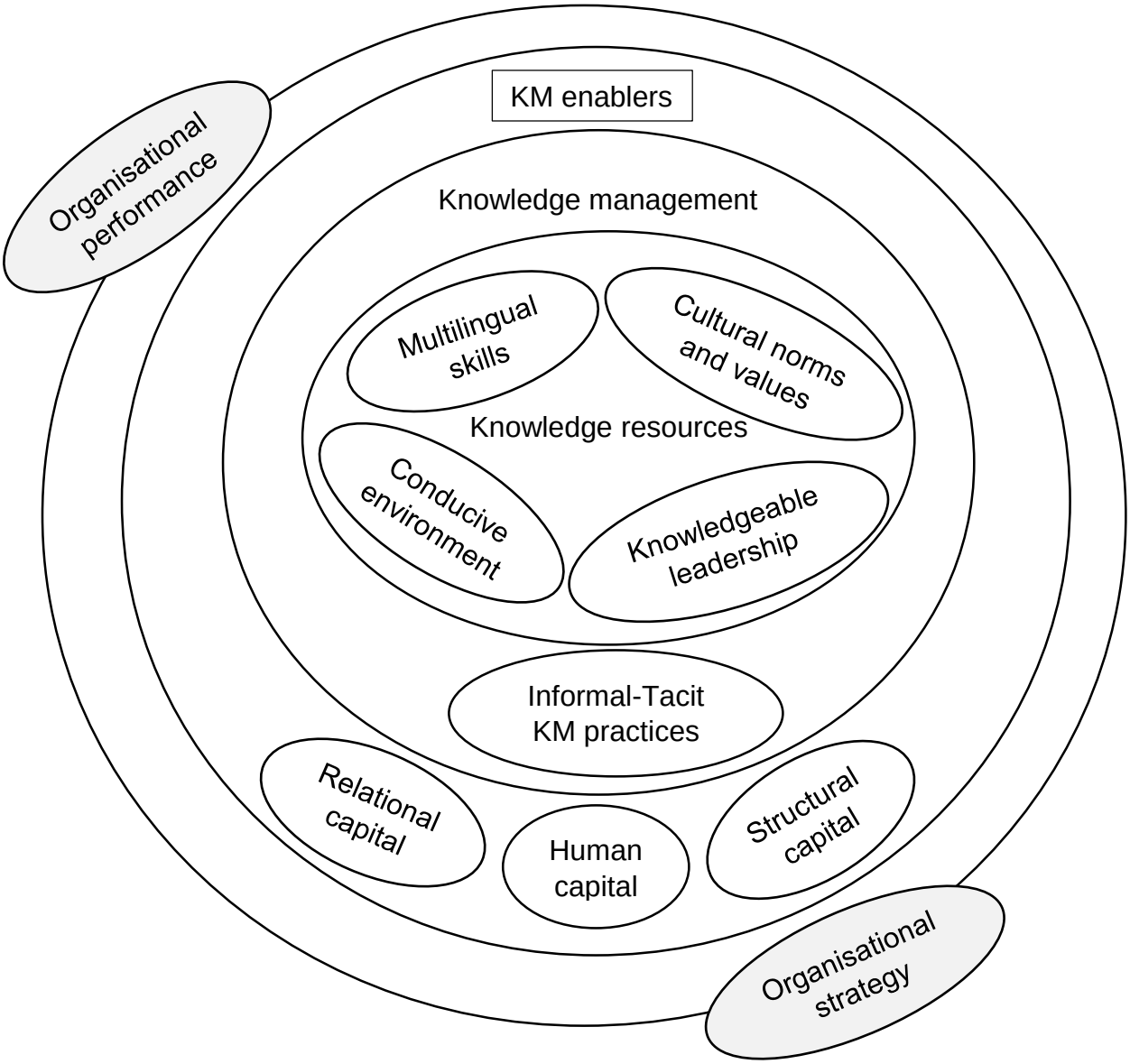


Figure 4-18 Conceptual framework including findings

# Chapter 5 : Discussion

## 5.1. Introduction

Reviewing the literature of knowledge management –a deeply complex topic along the philosophical debates around knowledge- in relation to organisational strategy and performance requires an extra layer of sophistication. The findings from Pakistani think tanks (highly intricate type of knowledge intensive organisations) were gathered from the knowledge intensive community, including experienced policy researchers and stakeholders. Discussing the multifaceted topic in an unexposed context in terms of knowledge management, but with wider scope in the indigenous and rich culture, is a challenge. Presenting a theoretical model and reviewing the literature poses two relevant limitations (1) it is about the past, as pointed out by Boote and Beile (2005), and (2) it involves the perception of the thinker. However, the findings and the resulting conceptual model originating from the specified contextual setting, lacks a worldview. The combination of the two (c.f. Eisenhardt, 1989) could pave a better way with a futuristic vision involving the researcher's thinking, combining the strengths of both models. This view is presented in figure 5.1 below.

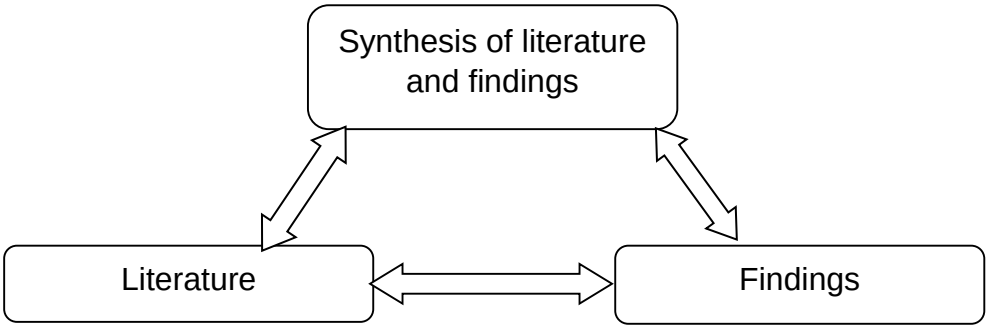


Figure 5-1 Concept of discussion (the author)

The discussion chapter aims to present the argument around the defined research questions by drawing evidence from the literature, as well as the empirical findings. After a brief introduction, the discussion leads to analyse individual research

questions. The four research questions takes shape of the four subsections addressing the research questions, in order to address KM, OS and OP relationship in Pakistani TT's. The research questions present the details of understanding and awareness, level of formality or informality, enablers and relationship with organisational strategy and performance of knowledge management in Pakistani think tanks.

Whilst struggling to achieve efficiency and effectiveness during tenure in a think tank, the researcher discovered that improvement in a single aspect without any consolidation would not serve the need. The need for holistic knowledge management was realised by experiencing the multivariate tasks covering the aspects of people, technology and processes on an operational as well as a strategic level. With 8 preliminary semi-formal interviews, the research scope began to develop, which was the initial point of the research questions. The initial research proposal possessed the raw shape research questions developed after the preliminary literature review. As Eisenhardt (1989) suggests, improvements on the research questions and constructs over the research process may occur. Through the incremental understanding of literature, context and academic English writing, supervisory discussions, peer review and research presentations at several academic forums, the research questions acquired their final shape. The research questions are as follows:

RQ-1: How does knowledge management occur in Pakistani think tanks and how considerable is the awareness?

RQ-2: How do formal and informal knowledge management practices vary across Pakistani think tanks?

RQ-3: How practical are the knowledge management enablers within Pakistani think tanks?

RQ-4: How does the relationship between knowledge management, organisational strategy and organisational performance differ across Pakistani think tanks?

The section follows a sequence of research questions. After above Introduction the second section presents the specific understanding of knowledge and awareness of KM. The third sub-section discusses the existing level of formality and/or informality of KM in Pakistani TT's. The fourth sub-section covers, in detail, the KM enablers in Pakistani TT's. The fifth sub-section discusses the relationship between knowledge management, organisational strategy and organisational performance in Pakistani think tanks. The chapter completes on the presentation and explanation, of the conceptual framework, reflecting on the relationship of KM, OS and OP.

## 5.2. RQ-1: How does knowledge management occur in Pakistani think tanks and how considerable is the awareness?

RQ-1 is concerned with an awareness of knowledge management, which is primarily addressed in this section. Several views of KM that are deeply rooted in the diverse understandings of knowledge (Früauff *et al*., 2015) complicate to understand any context. Additionally, if the specified context is knowledge intensive in nature, diverse and multifaceted, then the task becomes yet more challenging. Knowledge workers of Pakistani think tanks are mainly social science researchers and handling knowledge is their main task. This section will discuss briefly about knowledge, followed by research focus of the participant organisations. Subsequently, a discussion about knowledge resources followed by knowledge management has been presented. The

emphasis of this section remained on the existence of knowledge and knowledge management and level of awareness around it.

### 5.2.1. **Knowledge**

Differences of knowledge insights appear from a lack of consensus towards the meaning of knowledge (Chang and Ahn, 2005) and similar differences are found in Pakistani think tanks. The specific meaning of knowledge might vary from culture to culture and organisation to organisation and thus, may present a unique style for KM (Früauff et al., 2015). The diverse culture of Pakistan presents several variations of the meaning of knowledge within different communities. Similarly, in the Pakistani knowledge community, the knowledge worldview stems from religion, geographic culture and specific institutional culture. For example, a brigadier referred to the KM culture of armed institutions in the following words “when it’s working under the army, then up keeping of knowledge, its management is much better than other institutes” (4.18.1.1). While discussing this we must not forget that knowledge management is rooted in the army intelligence services (Horwitch and Armacost, 2002).

An organisation may not be labelled as knowledge intensive unless it has extraordinary knowledge and expertise to draw strategic advantage from it (Starbuck, 1992). Going deeper into the think tank community, there are a variety of ontological and epistemological views of the complex phenomena of ‘knowledge’. One such view is referred to by a non-research director was “w*hich type of knowledge you are considering material, knowledge, spiritual*” (4.20.1.1). This mainly distinguishes between scientific knowledge and spiritual knowledge. Furthermore, it is rooted are in religious beliefs (Rechberg and Syed, 2014), for example, a senior research scholar mentioned that “*Islam gave us knowledge*” (5.14.1.1). Another dimension was referred

to by a head of research unit as follows: "*check the old files hard files still preserved in the library, the old system of maintaining hard files, in which knowledge is stored*" (4.18.1.1). This specific example refers to the explicit forms of knowledge which could be retained within files (Schulz and Jobe, 2001). Another senior scholar explained that "*our (Journal)…is a kind of a stock of knowledge*" (5.4.1.1). One of the research department heads commented on the accessibility of knowledge in explicit form, saying "*if you want to make knowledge free*" (5.5.1.1). This refers to the cost of Journals and publications. A senior library executive referred to it as a process, saying that "*knowledge is an on-going process*" (4.20.1.1), which is also considered by Chang & Ahn (2005). Among the intangible resources, the requirement is for knowledge ideas, as stated by a young female research there is a "*need is of ideas*" (7.4.3.1). According to Williamson (2013) think tanks makes ideas achievable. A senior researcher expanded on this, saying "f*or knowledge there come as well that intellectual property rights but that's another issue*" (5.5.1.1). Less than half of the participants have insight in the topic and most of them treat knowledge as the 'expertise of the specific field' or 'knowledge of their field of expertise'. Similar to Kraemer's (2016) impression of the data, facts, ideas and narratives were dealt with at a think tank. Figure 5.2 provides a pictorial representation of the viewpoints of knowledge in Pakistani think tanks.

Workers in the technological era may perceive information and knowledge equivalents and some may differentiate them (Cooper, 2014). For example, a head of a research department said "*keep the difference of information and know-how in mind*" (7.10.1.2). Another senior researcher explained *"what our knowledge is we draw that from*

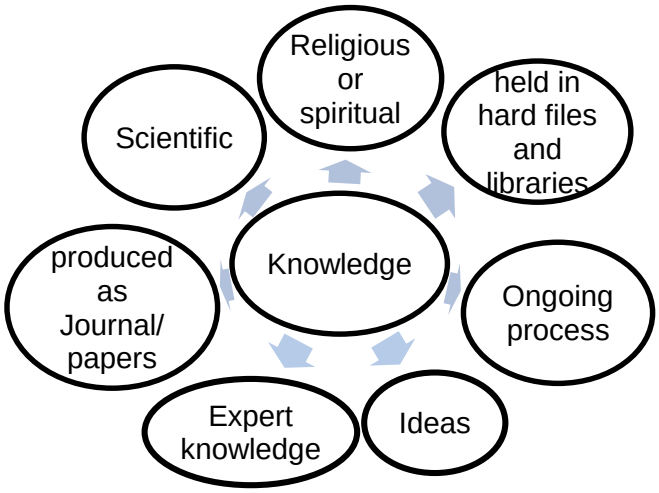


Figure 5-2 Viewpoints of knowledge in Pakistani think tanks

*information, from incidence*" (7.7.2.1). 2-3 interviewees discussed the difference of information and knowledge, since it was not in the scope of interviews, but there is a general difference between the two, which leads to the understanding of the differences of knowledge management. Lee and Choi's (2003) explanation that information might remain tied with some incidence provides an answer to what and how, but knowledge will go deeper into the causes and effects and explore opportunities and preventions, which is similar to the TTs journey. It is generally accepted in Pakistani think tanks that knowledge expands and flourishes on a basis of information, similar to Cooper's (2014) belief.

Similarly, the idea of knowledge is also highly ingrained within beliefs (Rechberg and Syed, 2014), world views and a perception of reality. Although Pakistan is a Muslim majority country (96.4% Muslims according to The World Fact Book, CIA (2016)), without any empirical research it could not be said whether or not the majority of people have a similar understanding and relate 'knowledge' with 'religion', or consider religious knowledge more important. In general, Islam treats 'knowledge' as the basic need for human capital (Bakir *et al*., 2015). It is a similar case within the research

community and research organisations in Pakistan, where the concept of knowledge stems from religious to secular views. For example, a senior female academic and researcher commented that "w*e have to create a fence between state, society and religion*" (3.1.1.2). The argument is not complete at this time, rather it is taken further to delineating the organisations into religious and secular, presenting different world views.

Knowledge is generally considered the combination of tacit and explicit types, as traced back to Polyani's delineation (Liao, 2003), but it could also be perceived on a continuum where it is difficult to distinguish between the two, with simultaneous existence in varying percentages. Codified knowledge is often emphasised as more simplistic relative to tacit knowledge (Tsoukas, 2005), ignoring how difficult software programming is - a direct example of codifying. On one hand, tacit knowledge supports formation of new knowledge, and on the other hand explicit knowledge supports to preserve. A researcher shared "…*to publish means preservation of knowledge, making it available for others*." (1.6.1.2). The findings present think tank organisations as handling knowledge mainly to explicate, but still the processes and knowledge intensity is mainly based on tacit knowledge.

### 5.2.2. **Research Focus of Participant organisations**

Pakistani think tank organisations are developed with a consideration for specific knowledge requirements, through which their research focus is developed. It is the fear of knowledge loss that made some knowledgeable people to form such institutes and gather knowledge. A founding member of a TT shared that "*this will be lost, this experience of 54 years will lost forever unless we do some tactical research on it"* (8.2.1.1). Pakistani TTs have to define their research focus, since no organisation can

do research on every topic (Treacy and Wiersema, 1995). Reliance on tacit knowledge is relatively greater than reliance on expert knowledge, considering the dynamic nature of knowledge (Lakomski, 2004). This tacit knowledge comes along the motivation to contribute towards knowledge, as shown in the above concern of knowledge loss by the founding member. While presenting this discussion, it is important to recall that the participants/interviewees of this research are either researchers or support workers of organisations conducting research in different branches of social science, such as economics, sociology, anthropology, political science, religious studies, defence and strategic studies (etc.).

The selection of research focus, specific yearly themes and topics, is a highly knowledge intensive task. A director mentioned that "a*t the beginning of year, an annual program is prepared, each and every activity is planned, by taking burning issues"* (4.18.1.1). In Pakistani think tanks, the selection proceeds with the high involvement of tacit knowledge sharing among senior researchers and area experts. For example, a council/board that is composed of experienced people discusses and suggests the agenda for institutes (7.1.2.1).

To attain the research focus in participant organisations there are some factors which impact the organisations objectives. It is important to discuss these factors, as they shape their approach towards research and research projects. These factors include; nationalistic approach, independence, multidisciplinary approach and organisational knowledge cohesion. These are briefly discussed below.

#### 5.2.2.1. **Nationalistic approach**

The organisational approach remains nationalistic in Pakistani think tanks, not different than any other organisation of any country. For example, an assistant manager reflected that from "*Pakistani perspective, we see it from our own angle, we have our own glasses to see*" (7.14.1.1). A stakeholder of the participant organisation had a strong stance that *"(think tanks) work in a national perspective*" (3.2.1.2). Such views highlight how an organisations priority to religion, state or society would be reflected in the objectives. It is related to Leitner and Warden (2004) view that research organisations are mission oriented. These views also provide a distinguishing criterion among think tanks or research organisations to class them as religious, nationalistic or of a social nature. That divergence shapes their agenda and their natural choices for knowledge management. This is similar to Nonaka's (2007) confession that ties are strong between knowledge creating companies and their vision. O'Dell and Jackson (1998) offer a well-known definition of KM: "*conscious strategy of getting the right knowledge to the right people at the right time*" (Rechberg and Syed, 2014). The same is agreed by Yea-Wen *et al*. (2015), i.e. what Pakistani think tanks are trying to do, while serving as a bridge between the state and society, is exchanging knowledge between the two.

#### 5.2.2.2. **Independence**

All sample think tanks reside in the capital city (Islamabad), near the Pakistan secretariat, parliament house, ministries offices and other governmental authorities. This means they are near to first-hand sources of information, but increases their risk, being in the red zone security area. Resultantly, their independence is at stake from the hustle of the capital city and distraction from their focus on long term agendas

(Mendizabal, 2015). In this regard, MacGann (2016) argued that it is a western fact that Asian think tanks share independence with their governments. This view is more similar to the finding that implies that Pakistani think tank organisations are somehow independent. The reason is ignorance, invisibility and lack of awareness towards these organisations by the policy making circle, rather than that these organisations have some power. The risks/pressures from relevant bodies might impact the independence of a think tank and their research. The possible pressure to present the research findings in a certain way could come from the government, political parties (Goux-Baudiment, 2009), funding agencies, the corporate sector, umbrella institutions, international organisations, secret agencies and/or the armed forces. Figure 5.5 presents the possible risks surrounding Pakistani think tanks' independence.


Figure 5-3 Risks for think tanks independence

5.2.2.3. **Multidisciplinary approach**

A consideration of the multidisciplinary aspects of the phenomenon complicates knowledge management (Summon, 2016). A multidisciplinary approach is a requirement of a think tank, in order to provide real life policy options. A young male manager stated that "*a think tank works on various subjects*" (7.14.1.1). The wider subjects/themes taken up by these institutes are multidisciplinary and involve various sub-themes/subjects. For example, a PhD holder subject specialist researcher stated "*peace and conflict studies …is multidisciplinary, like human nature, psychology and conflict, media and conflict resolution*…" (8.1.1.1). This increases the need and importance of knowledge understanding, sharing and creation (Witt, 2011). Pakistani TTs have embraced the challenge by providing a platform for multidisciplinary individuals for discussion (Halimen *et al*., 2013) and draw suggestions with mutual consideration. A senior researcher mentioned that "*we call representatives from policy, legal community, media like that from 7-8 segments of the society"* (2.1.1.2). The usability of the outcomes will increase upon consideration from multiple disciplines (Artail, 2006). A project manager described how "*when discussion about multiple sectors happens than learning increases by itself...*" (2.12.1.5). Goux-Baudiment (2009) raised concern for intelligence developing organisations, like think tanks, which are rooted in multiple disciplines and act as critical analysts with reference to future.

Agostino *et al*. (2012) raised a similar need for interdisciplinary research in social sciences along with collaboration and an informal style of management. Witt (2011) argued that interdisciplinary social science research heavily focuses on knowledge production and requires more information and knowledge depending on the problem, complexity and range of discipline over which it is spread. Multiple dimensions of

knowledge and amalgam of several fields required for a policy should be set together in a think tank to suggest an appropriate policy. This process requires effective knowledge management Kalkan (2017), as the multidisciplinary approach is important for knowledge understanding, usage, sharing and creation.

#### 5.2.2.4. **Organisational knowledge cohesion**

Another aspect of knowledge management is how cohesive and well aware the team is regarding the institute's objectives (Nonaka, 2007). It was observed that most of the admin team in Pakistani think tanks consider themselves not appropriate to answer the question of the organisations' objectives. They generally refer to researchers who they use to give interviews. For example, a discussant said it as "*it's not relevant to us, senior …level people who had their input at the foundation level can better answer*" (5.2-3.1.1). The researcher's responses remained within perspective of their subject and the admin personnel responses remained within their domain. A senior manager replied that "*if someone is working in finance and from him you are asking about research then it would become difficult for him to give the answer*" (7.3.3.1). Also, it cannot be said that the researchers have a full understanding of the institutional objectives. A young researcher shared that "*someone who is old… it would be in his knowledge*" (7.6.1.1). It has been fixed in the minds of non-executives and non-research employees that only scholars have the knowledge (or at least the appropriate knowledge) and their views and knowledge might be useless. There is a lack of awareness about KM and a flow of knowledge within the organisation. A common understanding of the objectives of an organisation makes the members coherent. Such a lack could be the cause of a decrease in the efficiency of Pakistani think tanks,

as Nonaka (2007) explained the shared purpose of the organisation makes it a living organism.

Some specific features of Pakistani think tanks, including research focus, nationalistic approach, independence, multidisciplinary nature and organisational knowledge cohesion with impact on KM understanding and awareness were presented above. The section initiated a baseline need and presence of knowledge management in Pakistani TT's, with reference to RQ-1. The subsection below will further answer RQ-1, i.e., understanding and awareness of knowledge management in Pakistani think tanks.

### 5.2.3. **Knowledge resources**

The distinction of knowledge resources in R&D organisations is highlighted by Hu *et al*. (2014), who defines them as transporters of knowledge. Key KRs required/used, by Pakistani think tanks are a knowledgeable leadership, multilingual skills, cultural values and norms and a conducive environment (see figure 5.6 below). A brief discussion of the key knowledge resources will be presented below to understand the scope of knowledge management within these organisations.

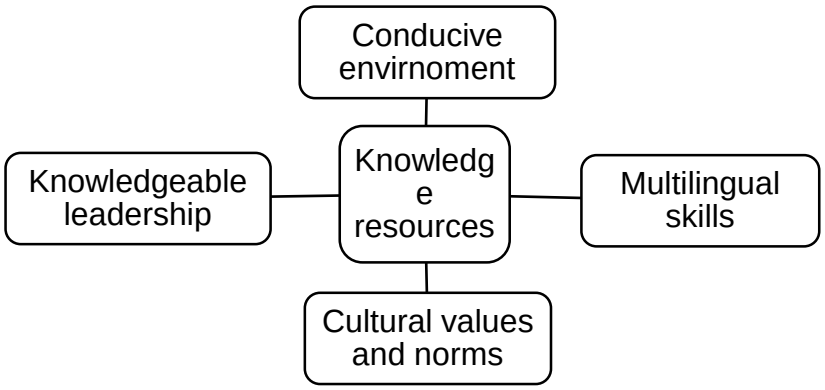


Figure 5-4 Knowledge resources

5.2.3.1. **Knowledgeable leadership**

The four levels (umbrella organisation, board/council, chairman/president, and operational head) of Pakistani think tanks leadership have an impact on the organisation and their knowledge management. Umbrella organisations usually have control for the main approvals and negatively impact the working and effectiveness with an extra layer in the hierarchy. The board of governors are relatively less effective and customarily is a dummy board. If a chairman exists, he is seldom involved in the organisational activities, but liaises with the dummy boards in high profile meetings. The well versed leadership with a command of multiple subjects, research skills, management skills and outreach skills, which could take and sustain an initiative of a think tank. This supports Chouridas *et al*., (2003) argument that a committed leadership is a critical factor for an organisational strategy.

Pakistani think tanks are primarily reliant on an operational head who looks after research and the day to day matters for the institute, with little hierarchy and departmentalisation. This sole leadership could take more benefits from knowledge management in their small, informal, less hierarchical and single authority organisations (Durst and Edvardsson, 2012). The cumbersome nature of routine operations in SMEs might lead to an ignorance of strategic issues. This could be a reason for an ignorance towards knowledge management ideas in Pakistani think tanks. This situation is faced with a lack of financial and expert resources, and does not allow improvement within knowledge management situation. The need is to discourage individualism at the leadership level in Pakistani think tanks.

Leadership of Pakistani think tanks faces unique challenges and as the industry is still at the embryonic stages, it is difficult to manage with limited resources. As a senior

participant in an organisational meeting mentioned, "*it is not easy to manage people and technology*." (2.0.1.4). The management of knowledge resources poses further challenges for the leadership of Pakistani think tanks in their current weak state, more than any other developed nation. For semi-governmental, or university-based, think tanks who are budgeted by a governmental stream, a head is assigned as per the gazetted tenure, and an absence of a head is a usual occurrence. The chain of command remains either in the hands of the deputy/the acting in-charge individual who does not have decision-making authority. As a result, the organisational activity begins to suffer, and in extreme cases new projects become restricted as they cannot hire new individuals or organise seminars (etc.).

The leadership model for Pakistani think tanks is based on utilising servant leaders, as explained by Sial *et al*., (2014) to provide pacifying work and learning opportunities, whilst delegating control and defining work parameters. The leaders who provided development opportunities are being praised in Pakistani TT's. This is about inculcating an interest of learning and development among the team through leadership and requires a mentoring ability. This relationship requires more flexibility, with the essence of mentoring and coaching, since knowledge workers rarely like to be controlled (Alvesson, 2004; Rechberg and Syed, 2014). Any attempt from the leadership to impose their agenda on knowledge workers results in an organisational disturbance. Other relevant qualities of the leadership are approachability, less interfering and flexibility. Leadership in knowledge intensive organisation is the amalgam of control and autonomy (Sial *et al*., 2014) and was found in Pakistani think tanks in the past.

In Pakistani think tanks, a clash between the knowledge worker and the leadership occurs. Another factor is the direct rapport of the leader with the knowledge worker, i.e. knowing them personally. Having personal contact in a professional way is necessary to deal with delicate and sophisticated knowledge workers. In developing a good rapport with knowledge workers, a leaders' own personality, manners, ethics, honesty, attention towards details and professionalism matters. One required characteristic for leadership of TTs is good listening skills. This may create a knowledge gap in the organisation. The characteristic which becomes most salient from the above is the personal relationship the leader has with the team members, which will contribute to a positive organisational environment. Required traits in Pakistani think tank's leadership are presented in figure 5.7.


Figure 5-5 Leaders personal traits

A question for Pakistani think tanks is the selection criteria of their leaders, which has many anomalies including their education level as top of the list. They have to lead

knowledge workers who have a higher level of education, and thus, require a higher calibre and status. The question is more than the appropriate level of qualifications and demands for relevance as well. A related debate is whether an academician or a practitioner could lead a think tank better. A senior researcher deliberated on this, saying "*the ones who run this place are not scholars…this is the number one problem…*" (4.3.1.1). There lies a conflict between the two and each group rarely accepts the leadership of the other. Academicians and researchers are not comfortable with the leadership of practitioners, as the nature and style of two differs. The required leadership criteria for Pakistani think tanks, is presented in figure 5.8.

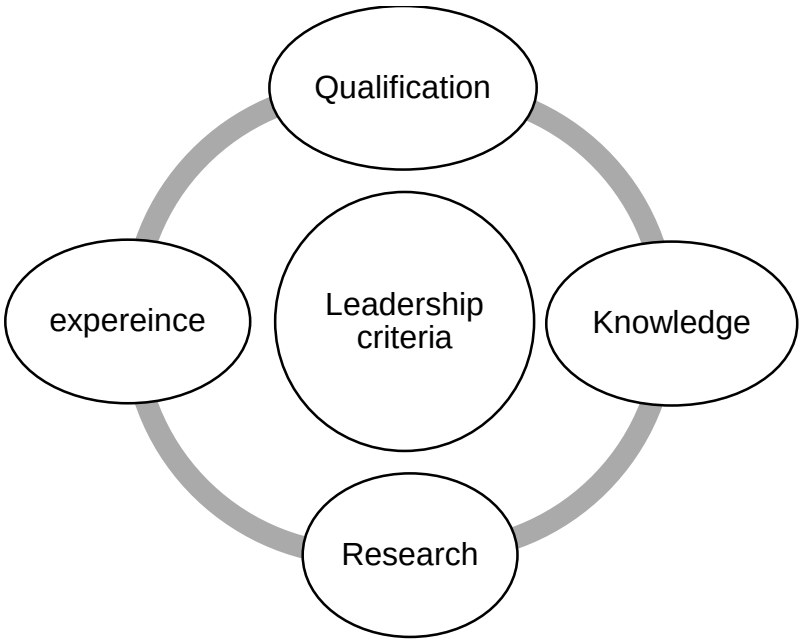


Figure 5-6 Leadership criteria for Pakistani think tanks

Al-Fehaid (2014) implies that academic leadership is keener for cooperation than the industry leadership. In Pakistani TT's, cooperation between the team is not particularly encouraged by the leadership, but originates from organisational culture. Leadership has a high impact on building or restricting interaction between the team. The interaction of seniors and juniors based on tacit knowledge sharing results in a learning

organisation, restricts the ‘reinvention of the wheel’, and develops a harmonious friendly environment, which paves the way for KM.

5.2.3.2. **Multilingual environment**

Pakistan has the strength of language diversity, with the Punjabi language (48%) as the dominant language, followed by the majority of the Punjabi ethnic group (45%) (CIA, 2016). Each province and districts have distinct dialects and local languages with major languages: English, Urdu, Punjabi, Sindhi, Pashto, Balochi (BBC, 2016) and approximately 58 minor languages (Channa, Memon and Memon, 2016). Figure 5.9 presents the diverse languages used in Pakistani think tanks over the scale of tacit/explicit and formal/informal. Though the multilingual culture is dying over time, it has proved a strong link with their performance and strategy.

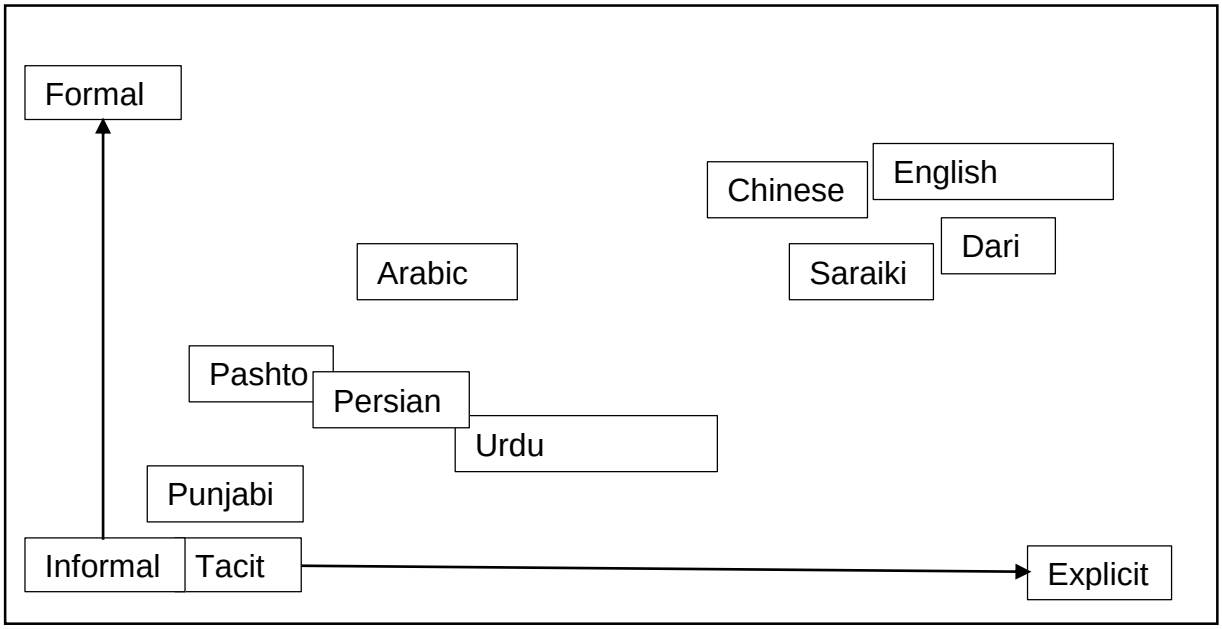


Figure 5-7 Languages used in Pakistani think tanks (the author)

English is used more formally as an official language (CIA, 2016) and is used for explicit knowledge, as most of the official records will be found in English. Another factor which brings English to the top coordinate of explicit and formal metric is the

bond with the technological world. For international communication, English is most commonly used. Pakistani TTs inherit the dilemma of linguistic confusion, comparable to the academic institutions, where the focus remains on English as a matter of prestige (Maldonado, 2015; Rahman, 2005), though there is no harm in admitting the workforce struggles with this foreign language. Most publications of TTs are in English, with only a few in Urdu. A decade ago, these organisations were seen as more effective at publishing in Arabic, Urdu and other languages. Moreover, it was observed in a seminar (5.0.1.3) at a participant TT that research was presented in a technical language, which made it less understandable for the layman and, secondly, the language mode was English, which further reduced the audience and knowledge friendliness. The subject languages are over ruling, creating a gap for knowledge sharing with non-technical persons from the society or state.

Urdu, the national language of Pakistan (CIA, 2016), faces limitations in publication due to difficulties of meeting international standards and market criteria. As a director shared, it is a question for Pakistani think tanks "*whether to do research in Urdu or not*" (7.1.1.2). Although Urdu is the national and official language, one cannot ignore the fact that native Urdu speakers are 8% of the total population (Maldonado, 2015). Whereas, Persian is no more a common language, and with the modern developments in Urdu with reduced Persian components, the language is dying with the elderly community (Maldonado, 2015). Arabic was in use within the specific literary community in the near past, but now in the stagnant state and the publication graphs have steeply dropped. Both the writers and readers for Arabic publications in Pakistan overall and specifically within think tanks have decreased immensely. While discussing the use of languages in the knowledge community of Pakistan, it cannot be

ignored that the debate of language has remained there since the country's inception (Maldonado, 2015). Arabic, Persian and Urdu were the languages considered essential for learning, where the debate of adopting English is a conflict (Rahman, 2005) since the era of Sir Syed Ahmad Khan. In a conference (1.0.1.3) presenters have the choice to present either in English, Arabic or Urdu, which expands their scope, audience and participants from multiple backgrounds. A female researcher gave a direct example of the benefits of multilingual skills "*we have an expert on China, when the Chinese come, he talks to them in Chinese*" (3.20.1.1).

#### 5.2.3.3. **Conducive environment**

It was found that intangible resources are providing more value when compared with tangible resources (Yea-Wen *et al*., 2015), but it should not be ignored that in the current state of Pakistani think tanks, tangible resources lack and a reliance remains more on intangible resources. The friendly environment of Pakistani TTs connects human resources and keeps them motivated despite the lack of tangible resources. An environment of ethics, manners and respect for each other supports the collegial relationship. The seniors treat juniors with respect and human characteristics remain with a consideration of other's feelings and care for other's problems. There is an acceptance of the fact that new-comers will bring new knowledge, whilst experts will have experience, in the participant organisations, similar to the view expressed by Crossan *et al*. (1999). The slow staff turnover of Pakistani think tanks creates a trustworthy environment (Durst and Edvardsson, 2012). Having guidance and support for each other is a key characteristic of their environment, which is important for research. However, knowledge management is regarded as a highly social process (Mason and Pauleen, 2003).

Friendly cooperation in Pakistani TTs is soothing tacit knowledge sharing and making them 'learning organisations', similar to Kvaløy and Olsen's (2008) idea. Zack *et al*. (2009) found that the organisational environment is important for learning. It is observed that the researchers discuss their work and ideas between the team and try to develop a better outcome. There exists a good balance of team-work involving knowledge sharing and independent working. The support workers sitting among the knowledge workers gain knowledge and motivation for further learning by being in that environment. The environment creates a healthy competition to enhance personal knowledge and education.

#### 5.2.3.4. **Cultural values and norms**

Common beliefs and values reassert the sharing of either explicit or tacit knowledge, making Pakistani think tanks similar to Nonaka's 'Ba' (Chourides *et al*., 2003). In Muslim majority -Pakistan (CIA, 2016) knowledge sharing is everyone's responsibility. The more knowledgeable the person is, the more the responsibility of transferring knowledge increases, Gaining knowledge is particular obligation considered for each individual. In a knowledgeable environment, people know the value of education and allow others to enhance their knowledge, which creates a healthy environment. For example, an old office assistant shared how "*madam used to say study, I will bring the books*" (5.17.1.2). Furthermore, a distinction between knowledge and education exists, and it is not necessary that knowledge only lies with the scholar.

Individuals will not resist to the practices if aligned with the cultural norms and values, as emphasised by Al-Fehaid (2014). If the organisational culture becomes disturbed for whatever reason, and the friendly culture is overcome by a 'bossy' culture, motivation present in the environment begins to wane. Syed and Ezbilgin (2010) found

a strong practice of bossism in Pakistani organisations. Pop (2012) emphasised the necessity of the code of ethics for think tank organisations, which may serve as a suggestion here. According to Goux-Baudiment (2009) developing cultural identity of a think tank is the best solution.

The prominent knowledge resources of leadership, multi-lingual skills, a conducive environment and cultural values and norms in Pakistani TTs have diminished steeply in the last few decades. This is a possible reason for their morass, where there is a lack of research culture (Sayed, 2012; Srivastava, 2011) and media-hype. This concern for Pakistani TTs aligns with McGann's (2016) apprehension for Asian TT's. The commitment of human capital and, a sense of ownership of the institute develop a different attitude and viewpoint. With the passage of time, the tolerance level for the lack of tangible resources increases and the effort remains to play positively. Knowledge management, (more specifically, tacit informal practices) is surely the key to success for Pakistani TTs and could prove wealthier for think tanks worldwide.

Figure 5.8 summarises the role of found knowledge resources in contrast to tangible resources on organisational performance. This section has presented the key KRs found in Pakistani think tanks, with reference to relevant literature. The next section will discuss knowledge management in Pakistani TT's.

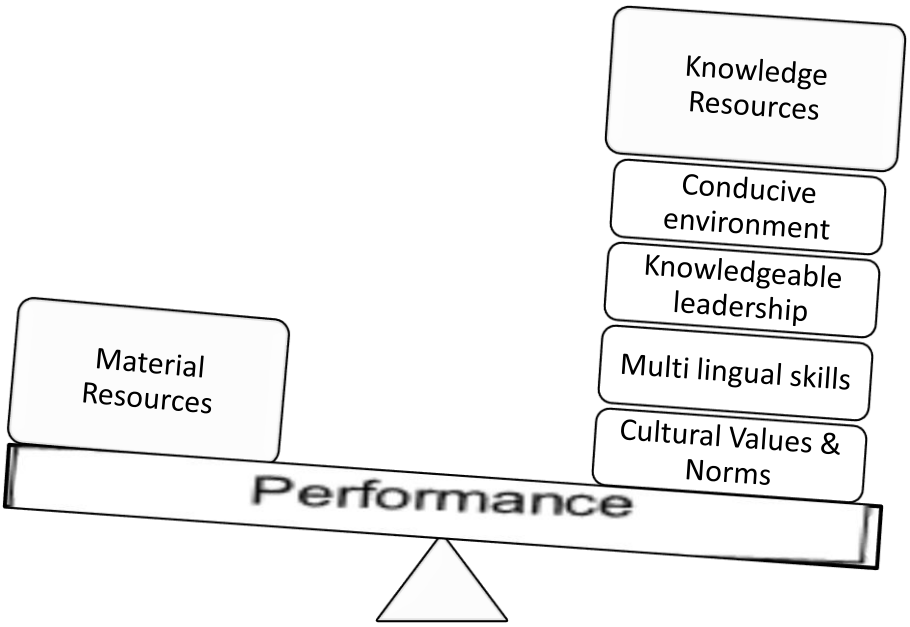


Figure 5-8 Knowledge resources weigh more than material resources on performance scale

### 5.2.4. **Knowledge management**

This section is sub-divided into the key discussion points of knowledge management, as found in Pakistani think tanks.

#### 5.2.4.1. **Knowledge and management**

Less than 1% of the participants shared the philosophical insight of knowledge and learning with varied views. Although it was shared with the participants that the research topic is knowledge management, the interview/discussion questions were in layman language and not directive for knowledge or KM. One dominant view is that 'knowledge' and 'management' and/or 'measurement' are contradictory in their precise nature. For example, an interviewee mentioned how "t*his is a standard and dominant myth that you have to measure in order to improve, but there is something that which is fundamentally qualitative, power of belief can't be measured*" (5.14.1.1). This is

similar to the Nonka's (2007) idea that knowledge creating companies are qualitative in nature. Difficulties of measuring knowledge empirically are also mentioned by Bakir et al. (2015), Ondari-Okemwa (2006) and Starbuck (1992) etc. Apparently, Pakistani think tanks do have some specific quantifying indicators in terms of their output, but not their actual representatives, as Cowan et al. (2000) concluded, this includes the vagueness of knowledge measures. The key question is not whether to manage knowledge, but how to manage it (Lee and Choi, 2003; p180) and the effort of Pakistani think tanks' remains on 'how to'. Morley (2014) also conferred the idea that performance measures might not be within the scope of an organisation, similar to the case of Pakistani think tanks.

#### 5.2.4.2. **Tacit knowledge sharing**

Pakistani think tanks have the same avenues of tacit knowledge sharing, as listed by Mungai (2014), such as seminars/conferences, roundtables, meetings, training, one to one interaction and interaction over multiple communication modes. He concluded that tacit knowledge sharing avenues are not fully utilised in most organisations. Pakistani TTs utilise the avenues with a positive impact on their performance but the tangible resource limitations hinders them. Pop (2012) listed the same tools for knowledge creation. Pakistani TTs provide an interactive environment following the culture, although the improvement margin is high, specifically in internal interactions. By highlighting the participative process of think tanks to play their role in policy making process, Perez (2014) emphasised tacit knowledge sharing among researchers and policy circles. Tsoukas (2005) discussed the irreversible nature of tacit knowledge sharing. A similar situation is found regarding the uniqueness of tacit knowledge. For example, an interviewee shared how a "*lot of things which are happening, which are*

*unique, one time, one kind events, and for those, science is not applicable so one needs to develop a new way of thinking*" (5.14.1.1). In practice, as well as in the literature, interaction is a relatively ignored area (Spender and Scherer, 2007). Think tanks may take benefits from the literature of operations management in the sports industry, in order to improve research events, in a similar way to how Bamford *et al*. (2015) discussed the service quality standards for better participation.

#### 5.2.4.3. **Open debate culture**

Pakistani think tanks have an open debate culture, similar to effective tacit knowledge management. For example, a female researcher said "*intellect is developed by debate...I always debate on topics and get acknowledged and never get shut out*" (4.2.2.1). The phenomenon is not mere tacit sharing, but a belief that with debate and discussion, knowledge and intellect is created. The acceptance of one's logic gives him/her recognition and self-actualisation. For a knowledge worker, a consideration towards his/her viewpoint is an incentive (Alvesson, 2004).

#### 5.2.4.4. **Islamic social concept**

The Islamic social concept and Pakistani geographical cultural concept of communities and neighbourhood is similar to the knowledge management concept 'communities of practice' (Lakomski, 2004). A support worker clearly explicated that *"…the concept of communities, is there"* (5.23.1.1). A leader mentioned "*Masjid's are where people get together five times a day, which are supposed to create a community which does interact*" (5.14.1.1). Emphasis remained on interaction and becoming a community, which also reflects the importance of tacit knowledge sharing. Correspondingly, Crossan *et al*. (1999) presented how an interpretation of quality improves with interaction, thus providing better communities.

#### 5.2.4.5. **KM gap and differences of military and civilian culture**

Armed personnel (a category of human capital, commonly found in Pakistani think tanks) could be retried, grounded or have no formal progression option in the army. The mechanical management skills of the armed forces exist in a more systematic way, considering the roots of knowledge management in the military services (Horwitch and Armacost, 2002), institutions under Pakistan army perform well in some aspects. One uniformed person praised this, saying "m*anagement skills are not more in anyone else but the armed force*" (4.18.1.1). With high risk towards independence, for example, an outside researcher's access to the organisation goes through heavy scrutiny by defence organisations. Military culture has certain impositions in achieving deadlines, meeting targets, accepting orders, confinement within certain definitions and many others. Research has a unique nature, which demands independent thinking, a free mind and flexibility. A cultural conflict could become the cause of distress within the organisation. A civilian researcher expressed his frustration with this, saying "*all day I keep hearing the sound of boots*" (4.3.1.1).

#### 5.2.4.6. **Multiple presentations of knowledge work**

A phenomenon of multiple presentations of a research output could be classed as good practice of knowledge management, considering the importance of repetition for learning. This comes with both merits and demerits, for example, different presentations/forms of publications reach out to a different audience, and this is proof of KM skills and if they know how to handle their work differently. Another advantage of the practice is it receives feedback from different sources to help develop research work. However, this could be a misrepresentation of organisational performance, due to double counting of the same outcome. This practice is not much different than the

international practices of research conferences, where developing papers were presented and were later developed as full conference/journal papers. One example of this is the annual conference of the British Academy of Management. The status of research publication is considered in relation to its quality (Hasan, 2015).

#### 5.2.4.7. **Engaging policy stakeholders**

Perez (2014) discussed the ability of think tanks to gather policy stakeholders and provide them a platform for knowledge sharing through seminars, workshops and conference. Although, Pakistani TTs make an effort to provide a similar platform, engaging policy makers is extremely difficult due to a weak political culture. Furthermore, the extensiveness of knowledge transfer from researchers to practitioners (Bamford *et al*., 2015) is in itself a challenge. Although Perez (2014) argued that think tank communication with the public remains limited, mostly to small specified groups (targeted public), the question is how wide that sphere could be. The present findings are in agreement with this argument.

#### 5.2.4.8. **70:20:10 learning model**

Knowledge management in Pakistani think tanks is similar to the 70:20:10 learning model; 70% learning is from experience, 20% from coaching and 10% from the class room (Rodgers, 2014), as it is based more on experience and tacit learning rather than formal learning. The disparity is that most of their members are not able to recognise the worth of the learning environment they partake in. Most of the participants had similar complaints with reference to a lack of formal training and development programs as a result of financial constraints. Participants appreciated the learning benefits as a result of experience and their formal progressions. Such examples are

mostly of the people who joined in the lower ranks and then progressed to higher positions.

#### 5.2.4.9. **Knowledge corruption**

The corruption of knowledge flows down to a lack of knowledge sharing at the right time with the right people (Al-Attas, 2005). In Pakistani think tanks, the ‘corruption of knowledge’ has other variations as well. Time lags in knowledge handling are natural as real time results have little probability; there is also a lack of organisational effectiveness and research work is time consuming. Knowledge sharing with the right people involves differences of understanding, interests, education and corruption. Corruption includes the sincerity of a senior to mentor or a junior, or limiting knowledge sharing to a certain extent. Forced sharing or false claims of knowledge product’s ownership also prevail in Pakistani TT’s. A young female researcher complained that “...they (IT department) don’t give the data” (5.(7)-8.1.1). A lack of freedom of expression also concerns knowledge workers in Pakistani TTs.

#### 5.2.4.10. **Research coordination**

A common term in Pakistani think tanks, ‘research coordination’, refers to knowledge management and improving it to a more knowledgeable level. Whilst doing research, a researcher is purely attempting to use knowledge, with the purpose of creating new knowledge. Research coordinators, rather than being pure researchers, generate research activity and bring in research projects. The objective of the research coordinator is to create research projects, gather diverse people to contribute at the knowledge platform, support tacit knowledge sharing and bring in the tacit knowledge at front. The process supports them to explicate the tacit knowledge, with the addition of explicit input a report is produced. This is acknowledged by Lu (2017), and Smits

and De Moor (2004), who argue that the deep involvement of knowledge manager in the knowledge development process enhances business value. Alike Nonaka's (2007) description of middle managers is that they serve as bridge between strategic managers and the operational team, whereas research coordinators are a bridge between top scholars, with a role in policy making processes, and front line researchers who conduct the labour work of policy drafting.

#### 5.2.4.11. **Knowledge management awareness**

Explicit knowledge management initiatives and implementation was emphasised by the literature (Durst and Edvardsson, 2012), but contextual findings of KM independence highlight its awareness. Think tanks with the strategic objectives of enhancing quantity and quality of research based policy suggestions could achieve higher performance measures through conscious management of knowledge resources and minimising errors. This fits well with the Carrillo *et al*. (2003) IMPaKT framework. This is further informed by the following three tier theory: (1) research processes supported by KM (2) building links in policy circles, and (3) knowledge dissemination and sharing, where TTs strategic objectives are linking policy makers and the public (Perez, 2014), optimally utilising human, organisational and relational capital (Schiuma and Carlucci, 2007) to achieve efficiency, effectiveness and impact, while reducing risk and increasing their network (Agostino *et al*., 2012).

Knowledge is only powerful when used, i.e. their worth of knowledge is associated with utilisation. This leads to a scenario where knowledge utilisation will bring power to the think tank organisation. Otherwise, the argument remains from where the thesis began: knowledge and KM is independent of awareness and the need is to value resources. Another argument is that although knowledge is scarcely realised in

Pakistani TT's, it becomes prominent and utilised in a time of crisis and need. A director shared that "*Pakistan is a nation of crisis, when its crisis we do tremendously well*" (4.1.1.1).

The acknowledgement and adoption of knowledge economy goals in a national vision (National Economic Council, 2014) introduces a concern for KM, but still at the organisational level (more specifically at the level of small organisations) there exists a gap. A little concern has emerged regarding how the organisations will play their part in developing the nation as a knowledge economy, and how they can become organisations for the knowledge economy. However, little thought has been given to make use of KM within an organisation. Management science, and specifically the field of KM, is at its nascent stages in Pakistan's research industry and academia. There is a dearth of studies falling under the banner of related fields and few reflect the empirical analysis of the KM scenario in Pakistan (Payal and Debnath, 2015). Few professionals and academicians are aware of the field or doing some relevant work. In the corporate sector, relevant programs, a support technology, initial implementations, and related positions have hardly been introduced.

The complexity and multidimensionality of the knowledge management field (Früauff *et al*., 2015) makes the question of awareness more difficult to gauge. Its multiple forms could not be covered by a single limited study in the defined time limits. An overall awareness of the contemporary 'knowledge management', which prominently belongs to business studies (Summon, 2016), with English terminologies is found less in Pakistani TT's. Although it could not be classed as an absence of awareness, its presence exists in multiple dimensions. It was neither directly asked nor was it in the scope of the study to understand the degree of dimensionalities of knowledge and KM.

A considerable point here is the native understandings of ‘knowledge’ (as discussed in section 5.3.1.1.) and KM, with their specified terminologies have a strong impact in shaping their views towards knowledge and KM.

Approx. 5% interviewees were considerate of the idea of knowledge management, although they did not technically belong to management sciences or KM fields; they had vast experience as knowledge workers. An executive director shared how “*the scope of our work in that quite quick developments are happening …means quick response*” (7.1.2.1). Lakomski (2004) considered how knowledge, with its vibrant nature, depends more on tacit knowledge. Another head provided highly critical insights, since “*research on the basis of obsolete theories were going on and this is the mismanagement of knowledge, today’s environment is dynamic, every moment is unique and making a context, then how can we judge that on the basis of old knowledge*” (5.14.1.1). One reason is the closeness of research and knowledge. For a researcher with philosophical insights and an understanding of epistemology and ontology of their research, they would have a specific meaning of knowledge. Polanyi’s (1969; p182) view as stated by Britton (1983; p92) in relevance to this, is “*Research is an intensely dynamic enquiring, while knowledge is a more quiet research*.” Developments in the field of research and gaps when viewed in relation to knowledge could be seen as knowledge management gaps, and an awareness among Pakistani researchers is obvious in light of their native understandings. Furthermore, the environmental dynamics and constant changes that causes research to become obsolete and swiftly demands for unique knowledge for each new moment, depending on the uniqueness of the social situation (Tsnag and Kwan, 1999).

Blurred boundaries of knowledge management processes rarely provide margin to delineate individual practices. In the specified context and field this distinction is superior and has an additional value. A specific example is the distinction between knowledge transfer and knowledge sharing in Pakistan, -a Muslim majority country (CIA, 2016), the knowledge circles and the literary people. There lies an extraordinary ability of knowledge transfer in the context, and likewise in Pakistani TT's. Knowledge sharing is generally considered a synonym of knowledge transfer in the management literature, but is distinct in specialised KM literature. Knowledge sharing is relatively weak in the Pakistani context. Pakistani think tanks also see the impact of this deeply rooted phenomenon within the country.

A common view among Pakistani think tank members is that knowledge resides in their personnel. As mentioned by a senior researcher *"...there is no think tanks, just people who are thinking*" (5.14.1.1). The phenomenon is aligned to Chourides *et al*. (2003) argument that KM brings synergy by collating individuals' knowledge into organisational knowledge. The personnel leaving the organisation take their knowledge with them. An organisational head explained how "*people came here and use it as nursery and just move on to higher platters*" (2.13.1.1). Another researcher used the terminology of a spring board to explain the same low retention by saying "*it is currently a spring board people come here, (and move on)"* (3.1.2.1). Occasional attention was paid to retain the knowledge of the leaving employees. A casual HR practice of conducting an interview with the departing individual or a sitting for sharing their experience with the organisation is also found in a participant think tanks, although no ample motivation and effort exists around it, like a senior manager shared "*I try that whoever is leaving… will share their experience*" (7.3.1.2).

A lack of knowledge awareness creates mistrust and dissatisfaction amongst the team, for example, an interviewee shared how people are not aware of the rules of promotion and other benefits, and have incorrect expectations, and as a result become angry. "…*when you go to rules and regulations then these things to a non-administrator person is not known"* (5.23.1.1). It would be beneficial to share knowledge regarding relevant policies at repeated intervals to ensure that staff are aware and there is no air of ambiguity within the organisational environment.

In general, an awareness of knowledge does not lack within Pakistani think tanks. Moreover, an urge to gain knowledge is also there. A senior researcher stated that *"gaining knowledge is a continuous process*" (7.12.1.1). An awareness of knowledge management is relatively low, and not all are convinced of managing knowledge. It cannot be said that an awareness of KM is absolutely missing. Another concern which arises is the bitter reality of human life, which is existentially limited. Research has no answer, so far, to tap into this knowledge, as an experienced director stated "*yes their knowledge is buried with them*." (8.2.1.1). A cause of knowledge attrition described by Durst and Edvardsson (2012) is the voluntary turnover of the ageing workforce. This fact is no different for Pakistani TT's, but a reverse phenomenon benefits them, since many retired professionals are joining hands with these knowledge organisations and usually voluntarily. A knowledge worker said in very clear words that "*retired people … outside (the think tank) …they are a big asset… it's their knowledge and experience …being shaped*" (7.11.1.1). Pakistani think tanks are working with older people handling the managerial challenge of the 21st century, as explained by Drucker (2001). Although, think tanks are conducting academic research around the world, they behave more like professional organisations and are usually doing advocacy,

consultancy and serve as pressure groups with the primary outcome of policy suggestion, which is much greater than academic outcomes.

An important requirement of a think tank is an idea, a concept or an issue to be worked on. A knowledge worker spends his/her energy on an idea with the motivation of concept's usability and the issue's importance. Less than 10% of the interviewees mentioned 'knowledge' as a need. One observation of Pakistani TTs is that the idea of 'knowledge' is scarcely regarded as worthy. A respect for knowledge and learning is critical for KM in relevance to performance (Zack *et al*., 2009). This is similar to the motivation of Pakistani TTs employees, whose choice remains for an organisation where the only attraction is knowledge and learning.

Like the gravitational force has always existed but was discovered later, KM occurs in any context involving humans who may not be aware of its presence (Durst and Edvardsson, 2012). A discovery or awareness of the phenomena possibly brings the attached value to it in the specified context. An answer to the quest in respect to Pakistani TTs is three fold, (1) a developing context, thus lagging behind in the race, (2) cultural and more specifically language differences matter (like the word 'knowledge' and the replaceable word '*ILM*' have contextual differences), (3) a lack of value towards the original treasure-knowledge. This section aided the discussion of RQ-1 by providing insight into KM awareness in Pakistani TT's.

### 5.3. RQ-2: How do formal and informal knowledge management practices vary across Pakistani think tanks?

This section will refer to research question RQ-2, and discuss the intricacies involved in the level of formality or informality of knowledge management in Pakistani think tanks. Systematic characteristics of organisations (Spender and Scherer, 2007) attract

formality, whilst their knowledge intensive nature persuades them to be informal (Alvesson, 2004). Empirical observations are aligned to Durst and Edvardsson's (2012) argument that small organisations lack formality of KM. The inherent conflict of the implicit nature of knowledge (Al-Attas, 2005) and explicit nature of KM (Mason and Pauleen, 2003) leads to a confusion of formal and informal KM practices. In Pakistani TT's, the confusion of formality and informality subsist. They convey formal matters in an informal way, but avoid doing it officially, possibly due to ignorance, time constraints, improper chain of command, process loop holes and intentions of not bringing the matter on record. The work projects of Pakistani TTs present intensive KM activity, but their internal knowledge management is weak. An observation is the formal presence of an outsider researcher to conduct interviews, which was not shared with the organisational members until the last moment and then conveyed informally.

One primary output of a think tank is seminars/conference/workshops which are effective platforms for knowledge participants to contribute in a debate. Such events are a kind of formal activity with intense knowledge activities. Knowledge dissemination and sharing are the essence of any such activity. Knowledge is used, created, stored, transferred, shared and made accessible by these activities. Unfortunately, the knowledge processes are under recognised in Pakistani TT's. Research presentations are followed by discussions and feedback is provided by the audience, improving their knowledge. The presentation and new knowledge is preserved in several stages of a live telecast, video/audio recording, media reporting and seminar publication. This coincide with Starbuck (1992) analogy that one of the task of knowledge workers are to preserve the knowledge. Pakistani think tanks need to take Starbuck's (1992) advice that mere storage will not preserves knowledge;

rather it has to be translated into the contemporary situation. The processes and outcomes of Pakistani TTs have a similar activity nature with what was pronounced by Jones *et al*. (2007) as embedded formal knowledge management activity. Another outcome is research publication, which could also be classed as explicating a researcher's tacit knowledge, which is a critical process. The more well-versed the researcher is in explicating his/her knowledge, the better the quality of the outcome. This phenomenon is similar to what is called commoditisation strategy of exchanging codified knowledge (Landry *et al*., 2016).

These two outcomes of a think tank are generally classed as formal knowledge management activities, but the practical aspects require further exploration. An in-depth investigation is required regarding what the contribution is of the formal and informal activity behind a research event/publication. Informality tends to be natural, whereas formality is artificially formed and hence informality could rule as social structures are relatively less sustained than natural structures (Tsnag and Kwan, 1999). A combination of formal and informal knowledge management activity could bring the best advantages (Alegre *et al*., 2013) as it improves understanding (Hassan *et al*. (2016); Kothari and Wathen, 2017). It is the norm that seminar/conferences are for networking, which is the development of relationships and sharing of tacit knowledge informally, though in a formal setting. Conversely, during formal discussions/presentations, the formality of the research events is a limitation for knowledge sharing, due to the low comfort level in public and formal recording. Informally, people remain open to share their knowledge. That knowledge might be physically stored or informally shared in corridor conversations, etc. (Durst and Edvardsson, 2012)

Formality and informality have a unique impact on the resultant interaction, for example, the number of the audience may increase due to increased formality on one hand, and limit it on the other hand. In a participant think tank's conference, the President of Pakistan was attending, thus increasing security, making it more formal where only card holders were allowed to sit in the conference. Interest increased due to the presence of President of Pakistan, in terms of participation and the media coverage that steeply decreased on the second day of the conference. One inference from this is that formality is more like showing off and less based on original knowledge sharing. General interaction enhances understanding (Crossan *et al*., 1999), with little concern whether formal or informal. The question of formality and informality is similar to the issue of conscious and unconscious lean usage and implementation as thought out by Bamford et al. (2014) in parallel to the concept of planned and emergent change within organisations. Whereas, lean is a continuous improvement initiative and could be classed as philosophy.

A clear preference for tacit knowledge over explicit knowledge in Pakistani think tanks retains the informality of knowledge management processes. A support worker shared the situation in these exact words: "*these people more relay on face to face discussions*" (1.18.1.2). There could be multiple reasons for a higher reliance on tacit knowledge, including the complex nature of the work, avoiding time delays, lack of technical skills, less reliance on technology and a bureaucratic culture. A 70:20:10 learning model reflects how tacit knowledge is more effective for learning and individual performance (Rodgers, 2014). Landry *et al*., (2016) argued that the formality of KM allows an organisational shift from tacit to mixed knowledge and from tacit to codified knowledge. As the Pakistani think tank's strength lies in their tacit informal

practices, so the decision for any shifts should be made consciously, without compromising any of their knowledge resources. Figure 5.9 presents how informal tacit practices weigh more for organisational performance.

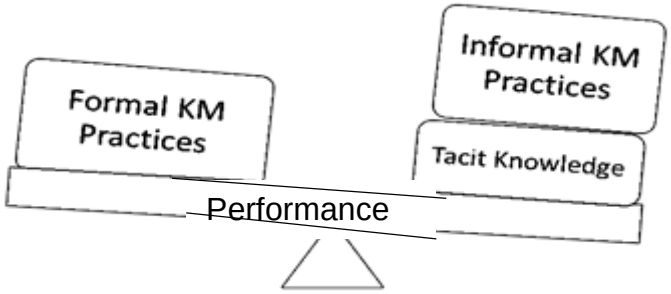


Figure 5-9 Informal-tacit KM practices weigh more for performance (the author)

Gerogiannakis *et al*., (2003) claims that 80% of organisational knowledge is unstructured and is usually ignored, whereas 20% of structured knowledge is being considered for their activity. The above argument is logical, since the explicit knowledge is relatively useful to begin with. One peculiar finding from Pakistani think tanks is that they tend to ignore their structured knowledge and mostly keep for aesthetic purposes. Although there is little emphasis on the standard operating procedures (SOPs) in Pakistani TT's, one reason for which is lack of formality. Less than 10% interviewees mentioned SOPs and a little awareness of SOPs exist in the participant organisations. The existence of SOPs could be classed as a step towards the formalisation of KM. Carrillo *et al*. (2003) contended that formalising knowledge management will take more structured approach, which could pave the way for performance measurement. Informal avenues of tacit knowledge sharing, such as lunch breaks, tea points, the water cooler (Mungai, 2014) are also found in Pakistani think tanks and are more utilised in less bureaucratic cultures. Also, Informal

knowledge sharing results in process of higher level of knowledge building Hassan *et al*. (2016).

It is observed that formality practices could serve as a hindrance to knowledge sharing. For example, talking to someone in a friendly way might give you some information, but making it official will restrict sharing. Similarly, in a formal activity such as seminars, when the policy makers are invited, they share the official views to respond to the public questions. The question is whether or not the average researcher gets the chance to discuss with the invited policy maker. Further observation tells us that the interaction between the official authorities remains within the think tanks' senior post holders. Minor formal interaction held between a common researcher and the policy maker remains protocol bound and rarely provides any chance for tacit knowledge sharing. Bamford and Greatbanks (2010) argue that planned change comes with formal structure, whilst tracking the history of emergent change is difficult. Emergent change possibly drives an informal manner, reflecting flexibility and time lag. Zaman (2016) argued that change is injected/ initiated by external forces and, moreover, social change is brought by communities not individuals and works in parallel to nation's institutions. Similarly, the outer environment of Pakistani TTs is highly dynamic, demanding strong organisational strategy to address the politico-social issues appearing with the need of policy. To initiate a think tank the strategy must be kept that there could be demands for being highly dynamic. This is markedly in line with Nicander's (2016) argument that think tanks are double faceted organisations with academic and political sides.

The section above has addressed the RQ-2 by providing answers in terms of formal and informal practices of knowledge management in Pakistani think tanks. The answer

is not straight forward in that for Pakistani TTs a higher KM awareness will lead to more formality and lower awareness of informal practices, and a mixed approach. Synthetic efforts for increasing the level of KM awareness presumably results in more formal practices of knowledge management. Still, this would be the mix of the two with an impact on the OS and OP. The phenomenon is presented in figure 5.10 below.

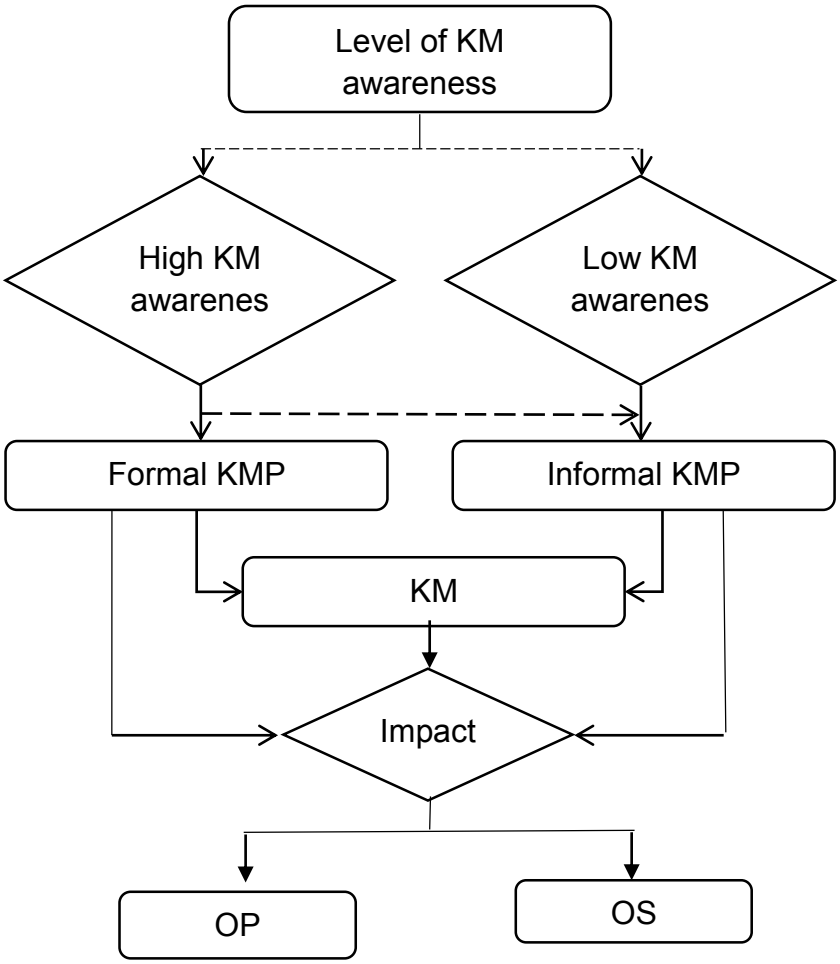


Figure 5-10 KM awareness and formality flow chart

## 5.4. RQ-3: How practical are the knowledge management enablers within Pakistani think tanks?

This section addresses the research question RQ-3 by discussing knowledge management enablers in Pakistani think tanks. The three KM enablers commonly found in the literature are, namely, human, structural and relational capital (Awan and Saeed, 2014; Bukh and Johanson, 2003; Schiuma and Carlucci, 2007) keep the unique distinction in Pakistani TT's. Other categorisations follow the titles of human capital, operational capital and structural capital (Myrna, 2012). Zack *et al*. (2009) combined information technology, organisational culture and organisational structure as a knowledge infrastructure, along knowledge processes, and found a strong relationship with organisational effectiveness, while the findings of this study create a distinction between structural capital and organisational culture and emphasise more on the culture for effectiveness. Knowledge components (Myrna, 2012), intellectual capital (Awan and Saeed, 2014), knowledge assets (Schiuma and Carlucci, 2007) were used as synonyms of KM enablers in the literature. It is important to distinguish between knowledge resources and KM enablers as utilised in the study. The study views these in parallel to each other, but distinct, and that is the reason why organisational culture, as advised by Zack *et al*. (2009), is not considered a KM enabler, rather a KR. This helped to keep this clear in the complex and multidimensional topic of the thesis. The key is that combination of these heterogeneous capitals results in competitive advantage Nikolaou (2017). Figure 5.11 presents the three main components of KM enablers.

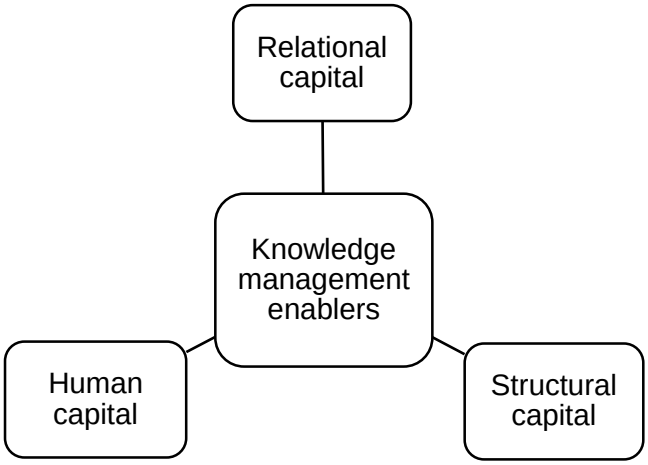


Figure 5-11 Knowledge management enablers

5.4.1. **Human Capital**

A realisation towards appreciating human capital is rising in Pakistani think tanks, slowly and gradually. One of the leaders reflected how "*there is no organisation, there is no think tanks, just people who are thinking, interacting with each other in different ways*" (5.14.1.1). Otherwise, HC falls in liabilities, but machines recorded as assets in the accounting system, which is a key for evidence-based decision-making in organisations. Nonaka (2007) emphasises the centrality of the team in knowledge creating companies, which is still to be absorbed by Pakistani TTs. The dominant view in Pakistani think tanks resembles that of Crossan *et al*. (1999), that knowledge workers do the thinking work for their organisations. Developments in artificial intelligence have taken machines to a higher level, but they are still far behind the research work that results from human activity (McCormack, 2000).

The human capital of Pakistani think tanks has two primary divisions of research staff and admin staff. Research staffs are better off, as they are key knowledge workers.

Figure 5.15 shows the two human capital streams in Pakistani TT's. The sub-sections below present the key debates related to the HC.

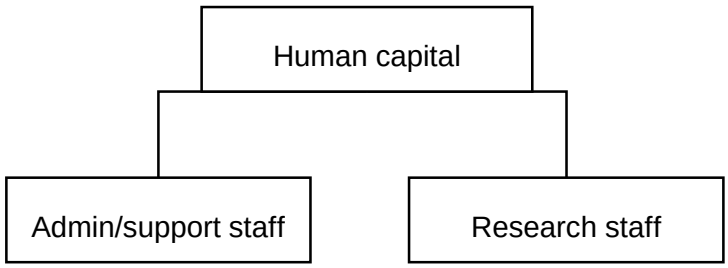


Figure 5-12 Human capital of Pakistani think tanks

5.4.1.1. **Professionals**

The dual role of the human capital of a think tank as academicians and politicians is specified by Nicander (2016). The findings of this thesis reveal third category, namely professionals, which includes journalists, bureaucrats and retired experienced personnel. A senior civilian female researcher mentioned "…*in Pakistan, who the senior researchers are mostly, are retired bureaucrats or retired armed personnel*" (6.4.3.1). The thesis is in agreement with Nicander (2016) who defined need of human capital as a mix of experienced and energetic young people. Yet, the question of the right balance needs further exploration, as findings are geared more towards a higher ratio of youngsters. Mendizabal (2015) considered young people as the drivers of ideas in the market. Research with an intrinsic discovery nature has a resemblance with teaching work (Britton, 1983). This is a reason for the overlap of teaching and research work among the Pakistani TT community. One participant TT has converted into a small university aligning to Zaman's (2016) indication that experience and theory combines to formulate higher degree knowledge. University-based think tanks have

researchers that are actively participating in teaching activities. It is stimulating that members of other than university-based TTs are involved in teaching and training activities, for example, approximately 25% of interviewees were teaching in educational institutions as visiting lecturers.

#### 5.4.1.2. **Training and development of human capital**

Training is important for knowledge diffusion (Al-Fehaid, 2014) and is largely ignored in Pakistani think tanks. The reasons for this are ignorance, work over load and lack of financial resources. According to Starbuck (1992) an organisation is not knowledge intensive unless it has at least one-third of its personnel are expert equivalent to doctoral level or above. It is common in Pakistani TTs that people join in lower grades; improve education, skills, grades, position, and take higher level responsibilities. The trend is weak on the administration side, but common in the research stream. In one participant TT every researcher is supposed to improve education; most of them are doing PhDs. The admin staffs are neglected and lack encouragement and incentive within the system. The reasons for this as explained by Agostino *et al*. (2012) are the interdisciplinary nature and the financial struggles of the research institute. However, a significant question is whether Pakistani TTs utilise their human resources justly or not. Pakistani TTs have to take the suggestions of Ondari-Okemwa (2006) to give due importance to their human capital development. Other questions include; (1) whether the level of knowledge work provides satisfaction to the knowledge worker, (2) it has enough developmental opportunities, and (3) ample learning is provided to the researchers. It is found that mostly junior research participants are frustrated in that they are not actually doing knowledge work and are merely handling the information.

They collect, assemble and present the information to the seniors/organisation to shape it according to their needs.

#### 5.4.1.3. **Learning community**

One outcome of Pakistani think tanks is that developed researchers who may have started from a basic level eventually reach the position of knowledge worker and/or authoritative position in policy making. Knowledge intensive business services have a high dependence on professionals to contribute new knowledge (Rodriguez, 2013) and hence Pakistani TTs dependence is on their researchers. An experienced member of a participant think tank was convinced that "*they are giving the output*" (7.11.1.1). Pakistani think tanks highlight this outcome and relate it to their performance. They take credit for turning young graduates into mature scholars for the country. The mature researchers become doctors and join the strategic work force of the country, playing their role in the strategic field. Providing a trained workforce is a contribution along developing a knowledgeable community, which shares a specified mind set and philosophies, to apply in their future endeavours.

#### 5.4.1.4. **Conflict of admin and research streams**

Conflict between admin and research streams of the human capital creates a wide impact on the organisational performance and environment. One conflicting point is that of the work assignment and in providing job description. This is usually the job of HR, which falls under the admin section of TT's, but they do not have the ability, neither the power. As a result, the job description of a research post remains vague, creating confusion in organisational procedures, hence, a KM gap. Furthermore, ignorance towards support workers' knowledge (Yanow, 2004) also exist in Pakistani TTs. Agostino *et al*. (2012) discussed the differences of interests between administrative

and research streams, where the former is keen for quantity and the latter is looking for quality. The Times Higher education poll survey 2016 found meagre contact between academics and professionals and support staff (Grove, 2016), which is not different than the clash of researchers and support staff in Pakistani think tanks.

#### 5.4.1.5. **Retention**

The biggest challenge for the Pakistani think tank industry is the retention of human capital. A leader explained how *"(the think tank) works as a training nursery in which people become trained and then move on to new jobs*" (2.13.1.1). Pakistani TTs work as a training nursery or a stepping stone for human resources, who receive training and move on mostly to a more developed industry, such as academia, politics or media. In other words, the Pakistani TTs industry provides experts to other fields, rather than only providing a knowledge sharing platform, as argued by Nicander (2016).

The above sub-section has discussed the key issues surrounding human capital as a prominent KM enabler. In the sub-section below, another prominent KM enabler named structural capital is discussed.

### 5.4.2. **Structural Capital**

Knowledge management requires structural capital for continuous improvement (Kalseth and Cummings, 2001). The structural capital of Pakistani think tanks could be primarily divided into physical capital, library, technological infrastructure and financial capital. The importance of structural capital cannot be denied, but preference remains for humans, rather than material objects. A senior researcher mentioned that the "*building, equipment do matter, but do not matter as much as the staff*" (5.5.1.1). The increased importance of intangible assets has decreased their reliance on

tangible assets (Yea-Wen *et al*., 2015). This is graphically presented below in figure 5.13. Each of the sub-structural capital are discussed in the subsequent sub-section.

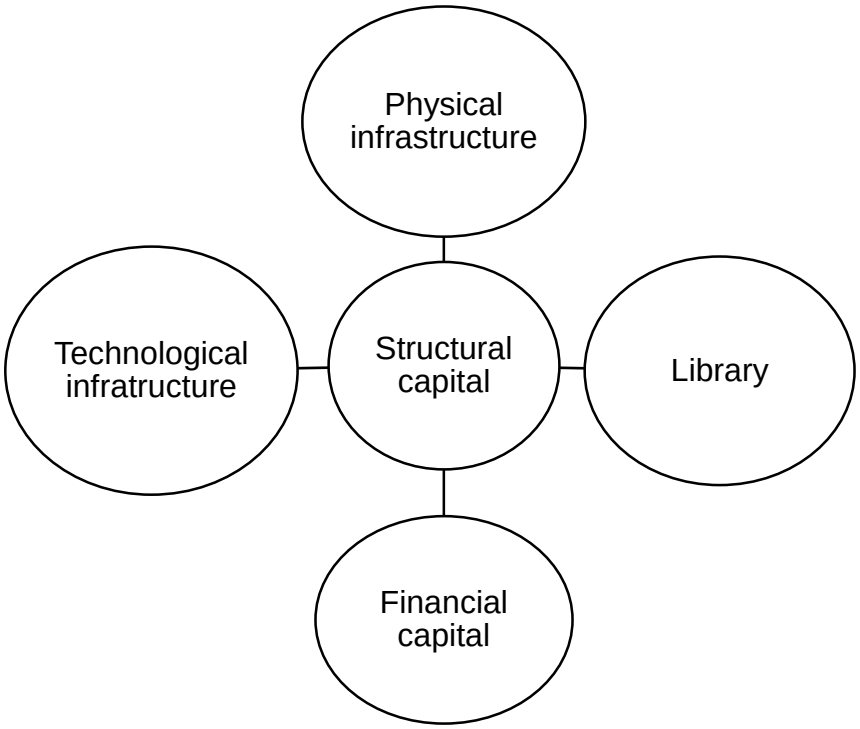


Figure 5-13 Components of structural capital

5.4.2.1. **Physical infrastructure**

The buildings in which think tanks reside have their own importance, specifically in presenting their face value, stakeholder's attraction and employee's satisfaction. A female researcher explicated that the "*building basically is highly important*" (5.22.1.1). There is great variation of the buildings possessed by the participant TTs, as they range from state of the art and customised buildings to little houses used to manage their organisations. There are some cases found relating to the buildings of these organisations over time after the umbrella organisation or the reporting authority changes. An executive researcher claimed "…*they have grabbed its building, ended its budget, it had a huge land property which was seized*" (1.17.1.1). Another senior researcher shared that the "*building is ours but the land is of X university*" (5.9.1.1).

The organisations that have their own building have an additional benefit. *"…this makes (think tank name) distinct from many other institutes that with us a reasonable (physical) infrastructure is*" (7.1.2.1). While organisations residing in an umbrella organisation's building mostly suffer from an operational crisis with the exception of army set ups, with the inclusion of maintenance and management facilities. An experienced manager stated "*premises! Which should fulfil the need"* (7.3.3.1). It was found that the 4 out of the 8 participant organisations were facing legal dilemmas concerning the ownership and usage of the buildings for their pursuit.

5.4.2.2. **Technological infrastructure**

Pakistani think tanks are relatively better off in technological infrastructure when compared to rest of the country. As shared by a publications department official "*Its comparable to corporate organisations (in technology)*" (5.2-3.1.1). The improvement margin is enormous, along the wish list. For example, he further shared that "*in relevance to library we are working on digitization and we are also working on databases.…We want to get these*" (5.2-3.1.1).

Al-Fehaid (2014) inferred on Aishilash's (1997) conclusion that IT enhancements advance organisational performance for all variables except research and development. This could be true for Pakistani TTs, which are less reliant on technology with a positive effect on OP (Deng, 2008). Ondari-Okemwa (2006) explained that the effectiveness and efficiency of information systems enhances knowledge sharing and transfer. However, Lakomski (2004) treated it as a myth that people will use the technology to replace tacit interaction. An important cultural aspect of Pakistani TT organisations is story telling. Strong knowledge transfer capability in the country has

the support of a ‘storytelling’ characteristic. Storytelling is an enhanced mode of knowledge transfer (Sawyer, 2015).

The use of websites, newsletters, social networks and media coverage by EU think tanks (Perez, 2014) reveals that Pakistani think tanks are not behind and are making use of all these alternate media at a lower level. Contrary to Perez’s (2014) argument, Pakistani TTs are beginning to utilise social media. Whereas, mailing lists, social networks, non-standard electronic newspapers, seminars and conferences are not an alternative, but the main communication strategies of the research population. Unlike European countries think tanks, Pakistani TTs need special attention to make their websites a strong tool for presentation and communication. Currently, Pakistani think tanks are trying to meet their targets through their printed newsletters. Pop (2012) argued that media visibility has turned into one of the priority areas for think tanks. Pakistani TTs are facing a phenomenon of a generation gap in terms of technology and communication modes. Among senior members, there are 10-20% computer users and assistance with operating computers is required. Similarly, for receiving the benefits of social media, there is a high margin. With the advancement of technology, every task is becoming more advanced and so are the organisational tasks. TTs are emerging as virtual think tanks (Kraemer, 2016) and an awareness is there among the Pakistani TT community. A young female researcher opined that “*no infrastructure is required, sitting at home, laptop and internet you could do that work*” (7.4.3.1).

#### 5.4.2.3. **Financial capital**

Financial effectiveness is essential for think tanks (Pop, 2012). It restricts their growth/activity expansion and may become a survival issue. Many opportunities of TTs are lost due to financial constraints. A major part of their budget is used for salaries

and the rest goes on services, publishing and printing costs. Ondari-Okemwa (2006) found that financial struggles restrict better hiring. A female researcher shared how "*due to the spirit such organisations are working, otherwise what the facilities are*" (6.9.1.1). Perez (2014) argued that modest knowledge accumulation could result from limited resources.

Financial constraints restrict the organisations in key knowledge activities such as seminars and conferences. They also serve as the cause for a lack of quality in knowledge work. For example, the peer review journal process is on halt in a participant institute, since the higher education commission is no longer providing that specified funding. It is found that this deprives knowledge worker to avail minimum benefits, and due to their inner motivation towards research, they sometimes employ personal resources. With the commitment of HC and their mutual relationship, Pakistani TTs have survived financial struggles. Participants believe that funding could bring forth improvement, and staff incentives and training will be beneficial for performance. Ondari-Okemwa (2006) presented that the financial challenge is highlighted for non-profit organisations, as they cannot attract quality knowledge workers. In response to the question of needs to achieve their objectives, more than 95% of the participants responded with financial needs. Less than 10% research participants emphasised the importance of KR over other resources. It is certain that financial limitations are a hurdle for knowledge activities, but contrary to Durst and Edvardsson's (2012) view, a lack of financial resources is not restraining knowledge sharing among employees.

One debate around funding choices is whether to take foreign funding, governmental funding, or funding from a specific sector. Individual institutes are making deliberate

decisions for the choice of funding and they say their choice is to keep their independence. Each choice has pros and cons, similar to Perez's (2014) argument, and the main concern remains for an independent point of view in Pakistani TT's. It was found that there are some possibilities for these organisations to adopt a model of self-sustenance, for example, through having advertisements in their books and other publications. In each participant institute there were outliers who were not in favour of their funding model, as compared to the majority, and their argument was to adopt diversification and reduce risk, having a more cognizant approach towards their independence. Whether the organisation is taking any funding or not, they claim to be independent and also celebrate it. The independence of Pakistani TTs and the effect of funding is neither deeply explored, nor within the scope of this study.

#### 5.4.2.4. **Library**

Libraries in general are store houses of books and lack modern research facilities (Hasan, 2015) and Pakistani TT libraries are no exception. The advantage is that along these book stores there are research units using these libraries. Research libraries support the researcher, by providing ready-made information, and skip the effort and time of searching specifically through providing bibliographies (Hasan, 2015).

### 5.4.3. **Relational capital**

Relational capital is the least realised and valued resource. Less than 10% of the participants reflected upon RC, not considering as particularly worthy of note. A think tank's foundation is capitalised on the basis of relational aspects. A founding member discussed an idea with professional friends and formed a TT organisation. It is knowledge in the form of an idea and relational capital in the form of professional partners, which becomes the foundation of a think tank. A founding director stated "*I*

*had no intention…vice president of the (name of foreign institute) said…why don't you channelise your thinking…we can help you"* (2.13.1.1). Turning an idea into a formal organisation, giving physical shape in the form of an organisation to the specified thoughts and wishes bring in by itself a form of explication and formalisation. Bukh and Johanson (2003) argued that organisational vision/mission statements are the first knowledge narratives. Organisational vision and mission statements is a move to accept Mason and Pauleen's (2003; p38) idea about KM as 'systematic and explicit management of knowledge activities'. When an idea using knowledge and KM turns into a research proposal/concept, it better attracts the relevant funding. However, wining funding is another debate and might also involve relational network. Taking the proposal further will surely need relational capital to materialise the ideas.

For an organisation and specifically for think tanks, relationships could be categorised as internal relational capital and external relational capital (Awan and Saeed, 2014). Internal relations are mostly composed of team dynamics, relationships between employees and departments, and relationships between different levels of hierarchy. Small Pakistani think tank organisations with little departmentalization generally rely on the relationships between the team members. A young female researcher said "*It's a team work basically"* (3.21.1.1). Although TTs employees have overlapping tasks over multiple dimensions, still the distinction of research and admin/support team exist. Along this division of research and support team, another important relationship is between the employees and leadership.

External relationships are mainly composed of social capital, and organisations' relationship with other organisations to take input and provide output (Alipour, 2012). An academic leader mentioned "…*we collaborate with international think tanks and*

*foundations"* (3.13.1.1). 5-10% mentioned the knowledge resources or rather information resources. A female researcher from a semi-governmental think tank said "*Just that, cooperation with other Government institutes in some ways*" (3.22.1.1). External relational capital involves a range of links and formal relationships in the form of collaborations and MoUs to conduct certain projects and activities, to the informal/friendly relationship of organisations and stakeholders. A point of consideration is that an organisation is mainly composed of people and it is people who develop the relationship. This is the same idea that Spender and Scherer (2007) found, that knowledge management is driven by collaborations.

Pakistani think tanks include some senior experts in their team who have served at some position of authority and their network and relationship is actually the asset being utilised by the institution. Networks capture tacit knowledge which is not codified neither with the information and communication technology (Ferguson, Huysman and Soekijad, 2010). Other than the bureaucrats, educators, armed professional, journalists, ministers and senators (etc.), there are persons mostly among the core institutes team, who are still in a position to communicate directly with the government and the policy makers. The logic behind the collaborations is KM, as analysed by Chourides *et al*. (2003).

Landry's *et al*., (2016) argument regarding a 'requirement of external knowledge', as a knowledge intensive firm could not merely survive on internal knowledge, is true for think tank organisations. An experienced interviewee added they "…*increase the output but have to bring variety in that*" (4.1.1.1). A think tank with a limited number of researchers struggles to fulfil the required knowledge flows and struggles to compliment the external knowledge needs, thus, external relationships are required.

Pakistani TTs are fulfilling this need through their associates, interns and research audience and participants. This is similar to the tacit-tacit conversion mode of Nonaka and Takeuchi (Tsoukas, 2005). The strength of relational capital will develop more on mixed knowledge (Landry *et al*., 2016). In accordance with Landry *et al*. (2016) findings, Pakistani think tanks like other knowledge intensive organisations are exchanging mixed knowledge with their stakeholders. However, they are also creating more tacit knowledge rather than codified or mixed knowledge, unlike Landry *et al*. (2016) findings, balancing the limitation of relevant resources for codification.

In highlighting the importance of relational capital found in the thesis, this is similar to Nicander's (2016) findings that an identified network is the key element for a think tank's success. Rather than its tangible products, the movement of people are the drivers of influence. Perez (2014) emphasised how relational capital is the stakeholder's concern for think tanks as knowledge brokers. The relation capital of a think tank could be categorised as internal and external relations, as shown in figure 5.14.

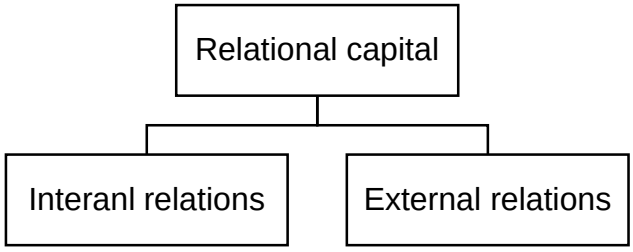


Figure 5-14 Categories of relational capital

5.4.4. **Section summary**

In Pakistani think tanks, the need of structural capital is highlighted. Organisations with appropriate SC have stature, comfortable processes and satisfaction. The question is to measure the actual value added by the SC in organisational output, which qualitatively has shown little difference. HC have good margin for enhancement in

terms of quality and quantity, but remains limited due to financial constraints. To increase policy making, the need is to increase the diverse output of TTs in quantity and quality. MacGann (2016) viewed HC as challenge for Asian TTs in providing a bright opportunity for the young researchers. A level of dissatisfaction of HC and the phenomena of ageing needs further exploration, as older and more knowledgeable people are required in the workforce (Drucker, 2001). Pakistani TTs lack the capacity to hire further people, but they are making use of their RC, no matter whether it is in the policy circle or in the public circle. Experienced people, whether retired from a governmental position or some other influential position, are collaborating as mentors and sharing their experience. Young researchers, with their creative ideas and urge for knowledge are using the platform to contribute their role. The section above presented knowledge management enablers in Pakistani think tanks in wide detail, in order to address RQ-3.

## 5.5. RQ-4: How does the relationship between knowledge management, organisational strategy and organisational performance differ across Pakistani think tanks?

This section will address the main and final research question RQ-4 in the research questions hierarchy, leading to the completion of an argument. The study has identified a theoretical research gap within the literature, graphically presented in figure 5.15 below. The study found that the three key organisational concepts of knowledge management, organisational strategy and organisational performance are scarcely discussed together. Furthermore, the gap becomes wider for think tank organisations, since KM in TTs is absent in the relevant literature. Meanwhile, the

organisations are composed of their human, structural and relational capital, which are the knowledge management enablers.

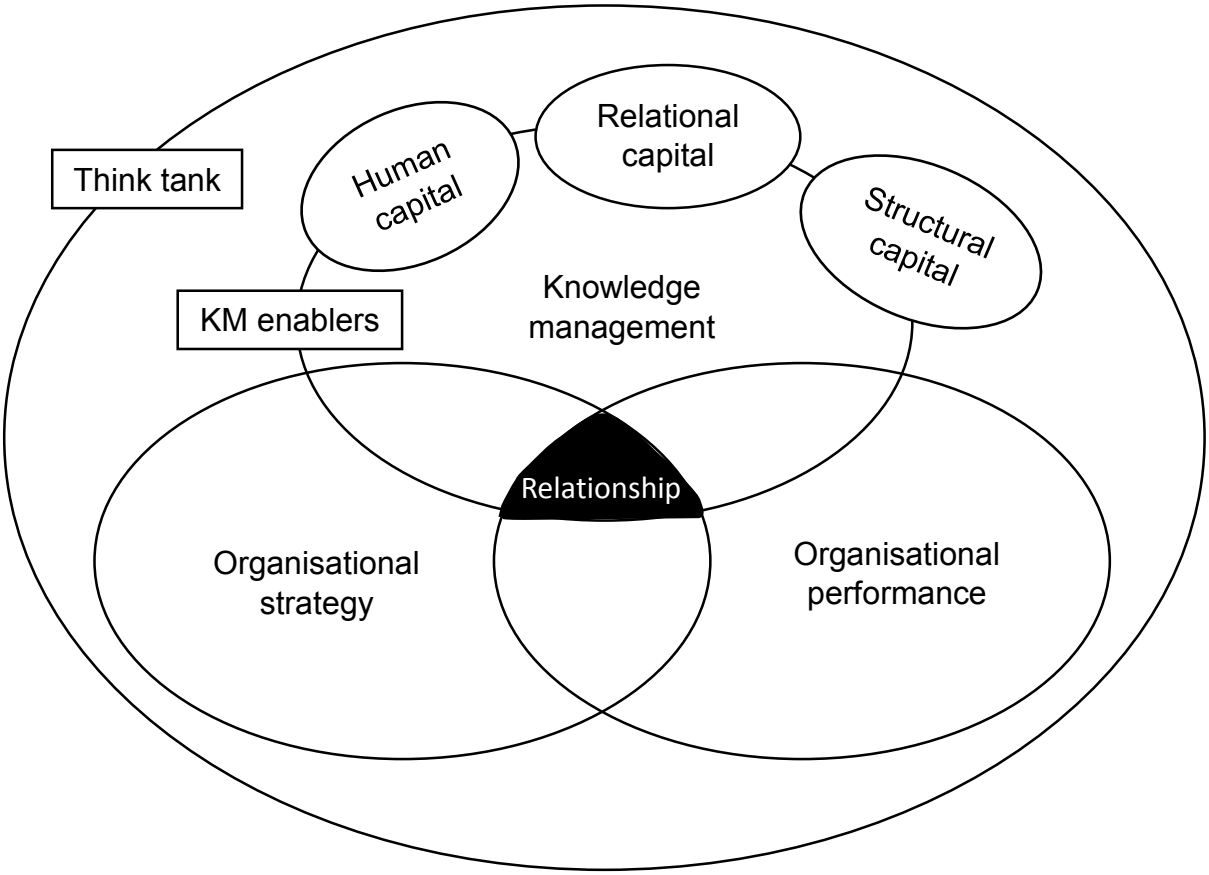


Figure 5-15 Theoretical research gap (the author)

A 'strategy', provides an answer for '*what to achieve'* and 'performance', measures '*how much has been achieved',* whereas 'knowledge management' links the two by informing us '*what to use* and *how to use'* it for optimum resource utilisation (Smits and De Moor, 2004). The world constantly evolves and demands continuous updates of strategy and performance evaluation. KM can certainly play the role of management for both. Constant work reflections and transference of experience could continually update knowledge (Lakomski, 2004). The resource based view is relevant here and a context with scarcity of tangible resources and higher utilisation of intangible resources extend it to the knowledge based view, considering knowledge as a strategic resource

(Durst and Edvardsson, 2012). Spender and Scherer (2007) exposed the unusual ignorance that existed before the realisation of the strategic importance of knowledge. According to Kalkan (2017) it was only in 1990s when the emphasis on explicit knowledge management appeared for organisations along the prior existence of knowledge and knowledge process. The three sub-sections describing the relationship of KM-OS, KM-OP and OS-KM-OP, are presented below.

### 5.5.1. **Knowledge management and organisational strategy**

Organisations could not be imagined without a strategy, as explained by Mintzberg (1987), and for think tanks, strategy becomes more critical depending on the high knowledge intensive nature. Knowledge management remained connected to organisational strategy (Lu, 2017). Stakeholders are defined at- a strategic level, then linked at the end in terms of delivery/dissemination, and are considered beneficiaries. The organisational output could be shaped for a different set of stakeholders, with the support of the knowledge management. Additionally, a specified output could be linked with the relevant stakeholder using KM. Preparing policy suggestions, making policy papers, developing subject expertise and providing a platform for relevant experts and students is the intended objective of Pakistani TT's. A senior scholar shared how *"…issues rose in different organisations and ministries will be guided by (the think tank)*" (1.11.1.1). Pakistani TT's, the organisations, as well as their researchers, are relatively isolated and rarely attempt to explain what they do. Researchers hardly pay consideration to make their research accessible to the common people, to turn it into lay man language, leaving the research less usable. Another impression is that these TT organisations are not known to the professionals -who work in the relevant fields. TT offices are difficult to locate, keeping the context in mind where transport is already

a problem for the public. This is contrary to Mendizabal's (2015) concern that think tanks should reside away from the city hustle.

An awareness and interest is rising among researchers and institutes to be more rigorous, authentic and empirical in their research, but obstacles to this are high. A researcher emphasised how "*empirical research is the most advanced research*" (7.15.1.1). While secondary research is mostly conducted by Pakistani TTs, they need quality care. Tranfield *et al*., (2003) are convinced of the need for rigorous and unbiased secondary research. Improvement appears through the passage of time. Changes in the main knowledge resources impact on their strategy. A senior researcher said that "*we are not concerned with domestic issues, but because there had been a change of director general, just recently, and our present director general feels that we need to focus on internal issues, more than the international issues.*" (3.8.1.1). Perez (2014) found an organisational strategy impact on the KM function of a TT. Often, a change of strategy is led by a change of leadership; a new leader pursues things in his/her style, taking the organisation on a new track.

Moving from research quality to the policy dimension, a general perception about policy makers is that they lack relevant technical knowledge. Think tanks support them by providing in-depth knowledge. Policymaking is a dynamic, complex, chaotic process, especially in developing countries (Young, 2005). A senior researcher stated that "*the idea was to create an in-depth understanding by creating a database of the issues concerning Pakistan among the policy makers and also within the academic community"* (3.8.1.1). Pakistani TTs' specify their research focus and their strategy moves around it. High social and policy demands and low number of TTs in the country creates pressure to generalise themes and make conclusions in wide areas of

research. In general, awareness prevails among the researchers that the organisation's focus should be specified. A young researcher shared, "*I am strongly against that you pick 110 issue and start working on that, No, not more than 5-7"* (7.4.3.1). This phenomenon is similar to Treacy and Wiersema's (1995) emphasis on choice of the offerings, by a successful organisation. They created a distinction between a value discipline and the OS that is highlighted in Pakistani TT's.

Jelenac and Swiercz (2011) saw entrepreneurial success as a combination of entrepreneurial thinking and strategic thinking. Whilst, entrepreneurial thinking involves the production of ideas, strategic thinking involves the use of strategic resource knowledge. Presently, the use of knowledge is linked back to organisational success. Jelenac and Swiercz (2011) highlighted how strategic thinking involves long-term learning. Strategic thinking has implications for the tacit knowledge of the strategic lead at the level of developing organisational vision, down to the explicit procedural knowledge of the operational team (Yang, 2010). Organisational strategic statements were the first knowledge narrative that presented the value to be delivered by the organisation (Bukh and Johanson, 2003). Strategy development is itself a knowledge intensive process and requires a high degree of interaction, as emphasised by Nonaka (2007) and his followers. Tacit to tacit communication for strategic thinking, and then tacit to explicit communication for transferring the strategic intent into operations, is linking knowledge management to organisational strategy. Strategy could be a consequence of a mental state (Jelenac and Swiercz, 2011), which is referred to as knowledge by Chang and Ahn (2005). Knowledge is considered as strategic resource and the management demand strategic intent, thus they look for its contribution to the overall organisational performance.

### 5.5.2. **Knowledge management and organisational performance**

The research definition of organisational performance is in achieving aims and objectives effectively and efficiently, with the appropriate spending, moving through appropriate operations. The relevant literature lacks a focus on the public sector's R&D, with a consideration for their financial struggles (Agostino *et al.*, 2012). It was found that in Pakistani think tanks it was not conceivable that intangibles could be measured. Similar, to the question whether love could be measured? Measurement of subjective phenomenon is a myth.

The main outputs (publications and seminars) of a think tank, results from a formal knowledge management activity. These organisations usually view their performance in terms of how many publications they have produced and how many seminar/conferences were held. Additional to this count, the quality of the outcome is also considered. The quality is usually gauged by copies of a book sold, subscribers of a journal/periodical, number of seminar audience (etc.). Another criterion is the political power/authoritativeness of the chief-guest/chair/main-discussants, to take their suggestions to the policy making circle.

It is observed in a seminar (5.0.1.3) that attendance was low, though the reminder had been sent to the staff. Whereas, staff feel burdened with this non-productive participation and try their utmost to avoid it. There is a missed opportunity for tacit knowledge sharing and new learning, similar to the exploration and exploitation conflict (Crossan *et al*., 1999). A reason for a lack of interest is the specific nature of the seminar, which rarely relates to the researcher's interests. Another possible reason could also be lack of interest from the leadership. A hurdle felt by the researcher in the seminar is the technical language of the research presented. The presentation was

not in a public friendly language, and was difficult to understand by students and the public. Another limitation of knowledge dissemination was the language barrier, as the seminar was delivered in the English language. The adoption of English is for the purpose of getting connected internationally and disseminating the national knowledge across the world, but success is also limited on the national level.

Publications are the outcome of knowledge codification, rooted in research bodies' (Agostino *et al.*, 2012). A senior researcher stated that the "*Journal…*is *kind of a stock of knowledge*" (5.4.1.1). Pakistani think tanks count their publications, seminars/conferences as one of their performance indicators. Carrillo *et al*. (2003) highlighted how performance measures were the main concern for the management of knowledge assets. It is found that the subjectivity of measuring knowledge assets make it difficult to develop performance measure for intangible assets. An in-depth analysis of codified knowledge will come to the conclusion that it is grounded on personal judgements and tacit commitments (Tsoukas, 2005). There lacks a quality criteria for the judgement of publications or research discussions, but there are commonly used concepts of peer review, international reviewing and advisory boards and audience-ship. Among other intangible assets' measurement it is mainly the performance of human resource which is noted among Pakistani TT's. A common criterion for a researcher's performance is the number of publications, conference participation and attainment of further training and education. One of the participant organisation had taken the lead by developing an instrument (see appendix C) to capture the intangible performance of their human capital.

A reason for the lack of Pakistani think tanks performance is low public accountability. And lack of accountability for the Pakistani think tanks, could be a reason behind low

adoption of knowledge management, which is adopted as a management instrument to oblige authorities (Leitner and Warden, 2004). The low awareness of Pakistani TTs is due to several reasons, which includes low literacy rate, poverty and a crisis state (CIA, 2016). Perez (2014) counted a lack of public accountability as a cause for the low performance of think tanks. Furthermore, her analysis showed that knowledge accumulated in the think tanks could enhance policy making.

### 5.5.3. **Knowledge management, organisational strategy and organisational performance**

Chong (2006) observed how organisational performance is determined by the benefits of knowledge management implementation, which has been discussed extensively with in the literature. Lack of KM implementation in Pakistani think tanks is not allowing them to reap the benefits. Studies focusing on the effect of KM on OP have recently increased, yet there is dearth of KM studies about Pakistani context. Payal and Debnath (2015) presented a systematic literature review, highlighting the journey of development. There are a number of academics who wrote in this area, including (Al-Qarioti, 2015; Junges et al., 2015; Kianto et al., 2015; Nnabuife et al., 2015; Rehman et al., 2015; Yavarzadeh et al., 2015 etc.). Even systematic literature review of Payal and Debnath (2015), where one focus was the context of the studies, has reflected only one study about Pakistan. Most of the scholars studied on this topic with specified dimensions and an explicit KM program. So far, Pakistan is lacking behind in formal implementation of KM programs. An incorrect selection of dimensions is the reason for the failure of KM choices and demands a cohesive view at the strategic level (c.f. Horwitch and Armacost, 2002). Secondly, knowledge and KM, is independent of an explicit definition and implementation. Therefore, context without an explicit KM

program is a better mode to test the relationship and its existence. This could be the starting point for KM initiatives and choosing suitable dimensions for the context. And as Carrillo et al. (2003) emphasised the formulation of KM objectives in accordance to a strategic context.

Knowledge management is less about managing knowledge assets and more about managing the response of an organisation about knowledge absence (Spender and Scherer, 2007). Pakistani think tanks are not cautious in managing knowledge assets but aim to fill the knowledge gap for the nation. The strategy of Pakistani TTs might not be perfect, but their performance is a result of KM. The development of organisational strategies is another outcome for KM. Pakistani TTs could further improve by achieving the balance of informing the strategy and performance through knowledge management and linking it to each other. Scarce studies have touched the knowledge management relationship with operational improvement, as part of their organisational performance (Karadsheh *et al*., 2009).

The non-profit nature of Pakistani think tanks tends towards pure research with little intention of return on investment, and little political say leads to meagre application. Leeson *et al*. (2012) argued that TT organisations, with their characteristics of being non-profit, research and educational, aim more specifically to improve economic policy. The study found the importance of relational capital and informal tacit KMP in the context, which is not unusual in relevance to the literature. Customised KM is the requirement of TTs (Perez, 2014). It relates to the organisational strategy that the considered target audience and KM strategy are aligned to. For example, one participant organisation aims to create awareness among people and thus, reaches out through radio and local newspapers using the local languages.

Chong (2006) analysed how organisational performance is determined by the benefits of knowledge management implementation. Contrary to Anantatmula (2007), question is about the benefits of KM without an explicitly implemented program. In Pakistani TTs it is evident that the KM program still lacks. No explicit program served as a benefit for the study, as the relationship appears more appropriately in the absence of forced implementation. The strength of a relationship is reflected in the absence of an explicit program, but studies of KM reflect more on implemented programs, such as Anantatmula's (2007) study. This is a reason for the choice of the context to observe the relationship of OS-KM-OP, which is inherent in Pakistani think tanks.

The concept of competitive advantage is rooted under the sub-field of marketing and competition. An essential consideration is that an individual/organisation enters into the competition/presentation with the confidence and maturity to be in the game. Another possibility could be that the situation forces an organisation to enter into combat. The difference between the two possibilities is how prepared the organisation is to play. A common requirement of the two possibilities is the internal strength of an organisation. The literature describes KM consequences in the form of a competitive advantage (Payal and Debnath, 2015) with explicit acceptance. This is enabled by improvements in human, structural and relational capital.

Often debated among the stakeholders, and a question raised by the informed public, is the impact of Pakistani think tanks. Apparently, the utilization of Pakistani TTs' outcome by policy circles is less. The ignorance of policy implementers raises the question about the worthwhile efforts made by Pakistani TT's. As observed, despite the situation, Pakistani TTs are performing well. More than half of the interviewees were convinced that they will continue to make efforts in research. Like a brigadier

said "*to validate these viewpoints…send these to 2, 4 more think tanks and 2, 4 universities and their departments to do further brain storming on it, write more views on it*" (4.1.1.1). A realisation of their important role to serve as a bridge between state and society is significant. Due to a missing link, their work cannot be stopped and cannot deprive them of motivation. The organisations have a specified style of KM, and policy making bodies may have their particular KM. On a national level the think tanks are taking KM on one level and other arms of the nation must work to take it further. Policy making institutions should have their own mechanisms based on KM to assess the policy suggestions from various TT's. An argument in the debate is that the individuals' and organisations' purpose is to work continually, providing policy suggestions without worrying for consideration from policy circles. A director said "*my work is to give policy input…irrespective of whether its dividends are getting received or not*" (4.1.1.1). This also relates to the dominant religious belief -Islamic values and moral aspects to gain knowledge at any cost. Research does not have the obligation for implementation. An experienced interviewee stated that "r*esearch is not done with the purpose that organisations have the obligation to follow it*." (4.1.1.1)

The direct impact of Pakistani think tanks might be weak, but the indirect impact cannot be ignored. Morley (2014) presents an example of the UK's social enterprise generating substantial financial savings through sports activities by reducing criminal behaviour. Further studies might calculate financial savings from the activity of Pakistani TT's, e.g., by raising awareness, informing policy suggestions, educating policy makers, providing a platform to knowledgeable people and researching solutions (etc.). In today's rapidly changing environment, traditional measures of impact and think tank influence are not particularly relevant (McGann, 2015).

Pakistan's Vision 2025 (The state's strategy) reflects the concern for R&D in the agricultural sector, science and technology, manufacturing, engineering (etc.). However, no apprehension had been made for the research of social sciences at the university level (National Economic Council, 2014).

Analysing knowledge management needs to provide a base to implement KM (Lin and Tseng, 2005). Their study dealt with corporate performance with a business and profit orientation, whereas the current study is focussed on non-profit, third sector organisations. Nicander's (2016) list of think tank characteristics includes non-partisan, non-profit, research, educational and tax exempt organisations. Anantatmula's (2007) KM criterion for third sector organisations is also useful for the study.

There is an increased need of social science research in Pakistan (Hasan, 2015). Policy makers face challenges for the efficient handling of information flood to develop knowledge and refer to the think tanks for these purposes (McGann, 2015b). McGann argues that the average policy maker reads 30 minutes a day, mainly from social media, rather than books and Journals. Furthermore, think tanks have to provide timely output to the right person in a customised format (McGann, 2015b). In Pakistan, a gap exist between policy makers and TT's. Policy makers are not utilising the TTs optimally, nor the think tanks reaching out to policy makers efficiently, leaving policy problems unsolved.

Pakistani think tanks are knowledge intensive organisations and knowledge management is a natural process to make them utilise knowledge resources. One concern is the weak intake of empirical data, mainly due to a lack of tangible resources. Crossan *et al*. (1999) present an analogous argument that a scarcity of resources

creates tension between the exploration of -new knowledge input and exploitation of -using previous knowledge. Organisational memory is composed of several types of data (Gerogiannakis *et al*., 2003). Pakistani TTs deal with a variety of data, under several research projects, over their years of operation. Several, Pakistani TTs serve as data banks or data generators. It could be inferred that the organisational memory of Pakistani think tanks is vast when compared to other organisations.

Change presents inherent friction that may cause disturbances, which is felt more by the knowledge workers who are genuinely more sensitive. Change is inevitable and could be natural or artificial. Organisational change may originate from management, leadership, personnel, the environment, funding scenarios, and national and international circumstances. These changes require strategy development, ensuing modifications in organisational KM processes, and hence the OP and the measures. Organisational competence is a form of continuous interaction with external stimuli and internal experience (Gerogiannakis *et al*., 2003). A similar situation was described by Nonaka (2007) in terms of knowledge creation, which brings a continuous organisational renewal. Differences will appear when moving from OP to, more specifically, financial performance (Venkatraman and Ramanujam, 1986) and from OS to, more specifically, developmental strategy (Kalseth and Cummings, 2001). When the three constructs are considered in a continuous cycle, then in other words, it is concerned with managing strategic change, which utilises knowledge capital (Crossan *et al*., 1999).

This section has discussed an in-depth answer to the research question RQ-4, hence completing the details. More specifically, in relation to the findings, the three main points discussed were KM awareness (Nunes *et al*., 2006; Mason and Pauleen, 2003;

Cowan *et al*., 2000), the level of formality of KM practices (Nunes *et al*., 2006; Choi and Lee, 2003), and an emphasis on the importance of RC (Newell *et al*., 2004), based on informal tacit knowledge management practice.

The conceptual model (figure 5-16) reflects the centrality of knowledge management in an organisational life cycle. Organisational strategy, which is an outcome of a knowledge management activity, is developed to achieve organisational objectives. Organisational performance, which belongs to the attainment of organisational objectives, is achieved through the organisational activities with embedded knowledge management. The model considers how organisational strategy and performance originate from each other with change being the only constant. Both, organisational strategy and organisational performance, continuously improves through knowledge management activity. The individual relationship between knowledge management, OS and OP is aligned by the contemporary literature, but demands explicit acceptance.

The study establishes KM as a central, energizing, and gravitational point, which holds the individual link with organisational strategy and performance, and also keeps the two in an orbit with one another, avoiding any clashes. Whereas, the knowledge management core is the knowledge intensive processes around the knowledge resources, enabled by structural, human and relational capital. The knowledge resources (knowledgeable leadership, conducive environment, cultural values and norms, and multilingual skills), serves as a seed from where the buds of knowledge management originates and nurtured. Whereas, the outer layer of knowledge management are the knowledge management enablers, the receptacles of knowledge management.

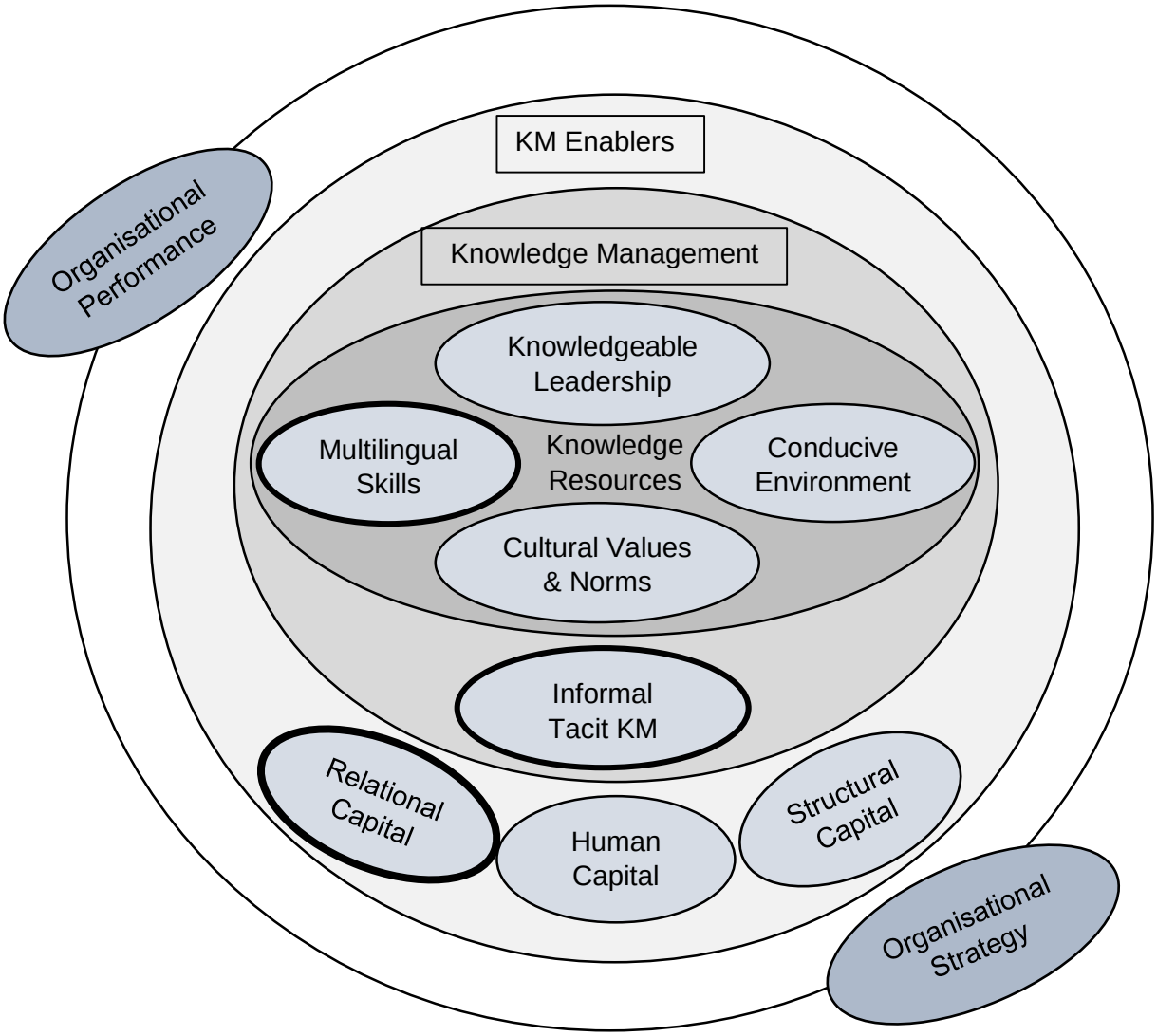


Figure 5-16 Conceptual framework including findings

The theoretical model, after including the insights from the contextual findings, could be reproduced with the highlighted importance of relational capital among the knowledge management enablers. Another influence on the model from the findings is the prominence of tacit informal practices as the nucleus of KM processes. At the level of knowledge resources inclusion of multilingual skills from the empirical data is been made. Where, organisational strategy and organisational performance mutually impact each other, revolving in the same orbit around the KM centre. Knowledge

management exists independent of explicit implementation and awareness, fuelling organisational energy and performance in a continuous development process.

The above section has addressed the theoretical and practical link of knowledge management in relation to organisational performance and organisational strategy. The literature so far has not dealt with the relationship of three constructs, i.e. KM, OP and OS together.

## 5.6. **Chapter summary**

The discussion chapter has presented the research questions along with evidence from the literature, as well as the present research findings. Following Bamford *et al*. (2015), a strategy discussion chapter was organised around research questions to bring in clarity of contribution. Each research question was dealt with in a distinct section to remain precise. RQ-1 was concerned with the KM awareness in Pakistani TTs, and the conclusion was that there is low level of awareness. This also led later to the conclusion that KM is independent of awareness or explicit implementation. RQ-2 was to ascertain the level of formality or informality of knowledge management practices in Pakistani TTs. This research question discussed how some practices could be classed as formal KM activity, in general there is lack of formality in regards of KM. Additionally, the benefits of informal KM practices based on tacit knowledge, were discussed. RQ-3 explored knowledge management enablers in Pakistani think tanks and it was argued that relational capital has salient importance. Pakistani TTs struggle towards structural and human capital, but are making more progress on relational capital. RQ-4 is the final question, concerned with the relationship of KM, OS and OP. It is claimed that KM glues OS and OP, keeping them in an orbit, chasing each other. If organisational strategy and organisational performance are not aligned,

purpose of an organisation would be at risk of distortion. Whereas, Organisational life will improve when organisational strategy and performance remained tied. Continuous change demands an update of the two constructs in an on-going manner, and knowledge management has the ability to keep the two aligned.

Table 5.1 summarises the research questions along brief answers. There is no implemented KM system found in the sample think tanks, but still a level of formality is there, which is highly important (Nunes *et al*., 2006; Choi and Lee, 2003) for the production of their knowledge products. The seminars, conferences, discussion forums (etc.) are formal platforms to generate knowledge ideas, policy debates and capture and record knowledge. Nonaka's (2007) definition of knowledge creating firms is suitable for think tank organisations in generating ideas to impact the world. Certainly informal knowledge sharing within the organisations and their knowledge associates remains dominant. The strength of organisations lies in tacit practices bringing knowledge products in an explicit form of publications, which are available for all.

Table 5-1 Summary of research questions along resulting themes

| | | | |
|---|---|---|---|
| RQ-1 | Understanding and awareness of knowledge management | Knowledge resources-Neither the resources lack nor does absence of awareness prevail. Low realization towards the worth of KR along lack of awareness for the technical KM field and related terminologies exists | Knowledgeable leadership |
| | | | Multilingual skills |
| | | | Conducive environment |
| | | | Cultural norms and values |
| RQ-2 | Formal knowledge management | Main activities of research publications and events are form of formal KM activities | |
| | Informal knowledge management | In the organisational environment, culture and work routine tacit knowledge sharing have major role. Level of informality in the knowledge processes remains high. | |
| RQ-3 | Knowledge management enablers | Structural capital | Physical infrastructure |
| | | | Technological infrastructure |
| | | | Financial capital |
| | | | Library |
| | | Human capital | Researchers |
| | | | Support worker |
| | | Relational capital have the distinction over other two main enablers relaying more on tacit informal KM practices | Internal relations |
| | | | External relations |
| RQ-4 | KM | KM is independent of the awareness and explicit implementation | |
| | KM-OS | Strategy development to implementation is an outcome of KM | |
| | KM-OP | KM supports nurturing of KR's and through KM enablers enhances OP | |
| | OS-KM-OP | KM is the natural energy centre that holds OS and OP in an orbit. | |

# Chapter 6 : Conclusion

## 6.1. Introduction

The acceptance of knowledge as a strategic resource and an increased interest in Knowledge Management (KM) is guiding the way for the 21st century. Think tank (TT) organisations are being looked upon in times of turbulence to be the hope for a nation's betterment. This research aims to find out the impact of KM in TTs and has two main objectives: (1) to develop a theoretical model of KM to relate organisational strategy (OS) and organisational performance (OP), and (2) to create an evidence-based conceptual framework of KM for Pakistani TTs. To fill out the theoretical research gap of OS-KM-OP, a thorough literature review has been conducted. For the contextual gap, 8 Pakistani TT organisations participated in the research after formal consent. A full working week was spent in each participating organisation, conducting interviews, discussions, observations and collecting document. Field work resulted in 191 interactions with 140 persons over 135 hours, including interviews, discussions, organisational meetings and seminars/conferences. 110 interactions of approximately 84 hours were recorded and transcribed verbatim. Multiple cases, data sources, informants and careful formation of data collection protocol formed the quality criteria for the study. Special consideration has been given to ethical cares surrounding anonymity, privacy and informed consent. Qualitative data gained from a mixed-methods and inductive approach has been analysed thematically. The knowledge based view is used at the management theory level to conduct the study.

The adoption of KM does not always represent a conscious organisational choice, but rather a natural process, occurring independent of the awareness and/or any explicit implementation. KM plays the role of an energy centre, which is covered by layer of

enablers – human capital (HC), structural capital (SC) and relational capital (RC), keeping OS and OP in an orbit to pursue each other. Current literature demands further clarity in defining the relationship of KM-OP and KM-OS. Considering knowledge as a strategic resource (KR) and KM as an organisational and developmental strategy (Kalseth and Cummings, 2001) enhances OP. The context highlights the role of RC (internal and external social capital) in making their performance, since the SC and HC is lacking. The context also highlights how informal tacit KM practices are more important. Among the intangible resources, the most prominent are leadership, multilingual skills and cultural values and norms in Pakistani TTs.

Continuous change demands a constant renewal of OS, which in turn requires the adjustment of performance measures. OS defines what needs to be completed and OP is how much the defined targets have been achieved, whereas central to this is KM, providing support through HC, SC and RC. KM defines how to achieve the OP aimed in the OS. One level of consciousness towards KM is movement from informal practices to more formal practices, both with a specified impact to carry out OS and achieve OP. Informal tacit practices are the main source of KM in a context where the explicit KM implementation is found absolutely lacking. However, few formal practices of knowledge sharing have been found in Pakistani TTs, without the label of KM. In the struggle for tangible resources, these organisations benefit from KR without any due acknowledgement. A consideration of KM as a natural process is one of the contributions of this study, along with the empirical study of 8 Pakistani think tanks (TT). The study fills the gaps of large scale empirical study, unexposed context to an explicit KM program and capturing the informality of KM, describing the KM-OP

relationship in the light of OS. Realising the worth of KR, increasing an awareness of KM and giving it due consideration, will enhance the OS and OP of Pakistani TTs.

## 6.2. **Research Aim and Objectives**

The aim of the study is as follows.

Finding out the impact of knowledge management in think tanks.

The above aim was achieved through the following two main objectives, whereas the second objective had four sub-objectives, as described below.

- Developing a theoretical model for KM to relate organisational strategy and organisational performance.
- Developing an evidence based Conceptual Framework of KM for Pakistani Think Tanks.
    - Assessing the level of knowledge management awareness in Pakistani think tanks.
    - Assessing the level of formality and informality of knowledge management in Pakistani think tanks.
    - Assessing knowledge management enablers in Pakistani think tanks.
    - Defining knowledge management, organisational strategy and organisational performance relationship in Pakistani think tanks.

## 6.3. **Knowledge based view**

The present study ascertain the hidden knowledge resources in Pakistani think tanks, for which knowledge based view highlight the strategic importance of intangible knowledge resources. The specific nature of knowledge resources, such as non-transferability, non-substitutability, inimitability, tacitness, (etc.) (Schiuma and

Carlucci, 2007), could better be explained through the lens of knowledge based view. Considering knowledge as a strategic resource, knowledge based view should not be considered as a mere extension of resource based view (Nikolaou, 2017). In addition to the static competitive advantage provided through resources based view, knowledge based view provides organisational renewal (Valtakoski, 2017).

## 6.4. **Answering Research Questions**

The study mainly addresses four research questions aligned to the research aim of reflecting the knowledge management scenario in Pakistani think tank organisations. Think tanks, with their knowledge intensive nature (Spender and Scherer, 2007), are managing knowledge in their own unique way (Kraemer, 2016), handling knowledge workers, research, policy suggestions, high tacit interaction and informality. Knowledge management in think tanks varies between several combinations of KM strategies, serving as organisational strategies and/or developmental strategies to knowledge management practices, which can be traced down to organisational performance measures. First, the theoretical relationship of knowledge management, organisational strategy and organisational performance is described to explain this particular point of concern. Later, each research question is briefly described below, along with answers developed from a synthesis of the literature and the empirical findings.

### 6.4.1. **Knowledge management in relation to organisational strategy and organisational performance**

This section is concerned with the relationship between the three main constructs of knowledge management, organisational strategy and performance. This conceptualisation was established from the current relevant literature, through critical

analysis. OS, which is usually the first thing in an organisational life cycle (Treacy and Wiersema, 1995), keeps on improving as the organisation proceeds. Over time, the organisation normally grows, matures and adapts with the environment. Alongside this alignment of management, approaching OS is required (Marr *et al*., 2004). With continuous change, the organisational strategy keeps moving on in a cycle of continuous improvement and might act as a developmental strategy (Markides, 2012).

Organisational performance might be viewed as the final point in a discrete manner. It is concerned with carrying the organisation's objectives and the extent to which aims are achieved (Armstrong-Flemming, 2015). It deals with how effectively the strategy worked to attain the aims and objectives of the organisation. A vibrant conceptualisation of the two constructs of organisational strategy and performance is that the two remain in a continuous cycle, chasing each other, whilst remaining distinct.

The improvement of organisational strategy and performance over time, with a changing environment and alignment to each other, is not without logic. Nonaka (2007) refers to continuous organisational self-renewal as a result of knowledge creation. The central force, which keeps the two domains allied in a continuous improvement cycle, is knowledge management. OS developments are brought in with reorganised KM, by incorporating new knowledge and requirements. Improved performance is the result of managing organisational knowledge (Holsapple and Wu, 2011) and knowledge intensive processes, as well as improved performance measures. It could be stated that the spheres of organisational strategy and performance are aligned to each other in a continuous cycle, tied to the central point of knowledge management.

Knowledge management lying at the centre of organisational depiction (Crossan *et al*., 1999) does not restrict the wide phenomena to the middle. Rather, soft and hard

aspects are spread all over the spectrum of the organisational life cycle and its hierarchy. A process view of KM makes it easier to develop understandings from the complex organisational structures and multidimensional nature of knowledge management (Horwitch and Armacost, 2002). The three main components of any organisation (human, structural and relational capital) are important to emphasise as knowledge management enablers (Myrna, 2012). The knowledge management centre remains separate from the three capitals (Agostino *et al*., 2012), with their strong bond, and remain distinct from the orbit of organisational strategy and performance.

### 6.4.2. **Knowledge management in relation to organisational strategy and organisational performance in Pakistani think tanks**

In general, the relationship between knowledge management vis-à-vis organisational strategy and performance remains the same, considering the similar characteristics of most knowledge intensive organisations. The OS of Pakistani TTs has strong ties with their organisational performance, since the two remain in an improvement cycle. As a think tank improves its performance, it enhances the strategy and vice versa. Whereas, the upgrade of two phenomena's is controlled from the knowledge management centre. The four research questions answered below help explain the dynamics at play here.

#### 6.4.2.1. **RQ-1: How does knowledge management occur in Pakistani think tanks and how considerable is the awareness?**

Pakistan a developing nation, along with several other struggles, faces low literacy rate and a weak educational system (CIA, 2016). The awareness of the modern technical phenomena reaches relatively slower to the nation. Factors behind this low awareness include the world's ignorance, local problems, inappropriate use of

resources, along with intellectual and communication distance. Disputes surrounding language occupy a major role in enhancing the gap. ‘Knowledge’ and ‘knowledge management’ as English terms and current advancement in the field, have a home in the West and the mode of development is English.

In the context of the present study, given local languages and understanding a synonym of ‘knowledge’ could be ‘*ILM*’ where the former is a limited term and the later has wider milieu. Similarly, the strong cultural, religious and social styles of the context have their own responsibilities towards knowledge and KM. If viewed from a management perspective the nation has a unique attitude, with the ingredients of informality, ignorance and lack of self-appreciation. Whereas, management of the intangibles are further overlooked, with the understanding that only tangibles can be measured and managed.

The Pakistani think tank industry is a platform of the country’s most knowledgeable and intellectual community. The researchers, highly educated and experienced people, subject experts, known scholars and their support community, surrounded by knowledgeable stakeholders and sitting along special libraries, forms a highly knowledge intensive environment. These organisations formed with concern for knowledge, take knowledge input of ideas, data and information, process it with knowledge expertise, and present a knowledge product.

Among the strong knowledge community and subject experts, there are hardly any management experts and further rare existence of the knowledge management experts. The small think tank organisations lack a designated KM department, personnel, officer, system or software. KM appears to be the responsibility of everyone, as each researcher and their support workers are handling highly

knowledge intensive tasks. Knowledge management, and the related technical English terminology, are seldom found throughout the extensive communication with the participants. The knowledge workers doing research in social sciences mainly consider knowledge as subject expertise, but the highly experienced researchers have a philosophical position on knowledge, since knowledge and research are related (Britton, 1983).

There is some understanding of the different forms and types of knowledge prevailing among the community. A realisation towards human capital is increasing, but still needs to be formally accepted. A strong urge was found, towards knowledge resource, leadership, and how this could impact the organisations from origin to peak. There is little concern regarding the requirement of multilingual skills and general acceptance for a conducive environment.

#### 6.4.2.2. **RQ-2: How do formal and informal knowledge management practices vary across Pakistani think tanks?**

The implicit nature of knowledge (Attas, 2005) and explicit nature of knowledge management (Mason and Pauleen, 2003) raise the question of formality and/or informality of KM. Pakistani think tanks are far from implementing formal knowledge management yet. A lack of knowledge management systems, procedures/manuals, departments, responsible people, and awareness, keeps them away from formal adoption. A smaller size, less hierarchical structure, little departmentalisation, the underlying culture, collegial environment and research nature, all make them more informal. Standard operating procedures, defined processes and documented regulations are in place, but with the prominent question of regular revision and implementation. The informal nature of Pakistani think tanks offers evidence of their

knowledge insensitivity (Alvesson, 2004). As Durst and Edvardsson (2012) reasoned, small organisations are informal. Tseng and Kwan (1999) explained one benefit of informality, it is natural and more sustainable. The partial lean management model, coined by Bamford et al. (2014) could be adapted for the implementation of knowledge management in Pakistani think tanks, with the addition of a step prior to education that focuses, on analysing the current status of knowledge management, which may be informal and inherent. This will also avoid the management fad, by initiating systematic knowledge management, implementation as expected by Kalkan (2017).

The primary outcome of research publications and events in Pakistani think tanks are based on formal knowledge management activity. Knowledge usage, creation, preservation and dissemination are the result of the key activities of think tanks. These embedded formal knowledge management activities (Jones *et al*., 2007) are assisted by informal KM activity. Codification of the tacit research activity in form of publications is the most basic performance building task for organisations. The commoditisation strategy of exchanging codified knowledge (Landry *et al*., 2016) is similar to the Pakistani TTs publications exchange program. 80% of the organisational unstructured knowledge remains ignored as difficult to access (Gerogiannakis *et al*., 2003). Certainly within Pakistani TTs ease to access structured knowledge is underutilised. Movement along the axis of the formal-informal moves in parallel to the axis of the explicit-tacit Landry *et al*. (2016). Pakistani TTs were found to have heavy tacit-informal activities forming their output. Similar to the 70:20:10 learning model, which states that tacit knowledge is more important for learning and performance. Both formal and informal activities have merits and demerits. Pakistani think tanks take advantage of a combination of formal and informal activity, as suggested by Alegre *et*

*al*. (2013). The first necessity remains the interaction, whether it is formal or informal, since an enhanced understanding is the result (Crossan *et al*., 1999).

#### 6.4.2.3. **RQ-3: How practical are the knowledge management enablers within Pakistani think tanks?**

The common categories of knowledge management enablers in the literature are human, structural and relational capital (Bukh and Johanson, 2003; Schiuma and Carlucci, 2007; Awan and Saeed, 2014). These three categories were found to be significant in Pakistani think tank organisations. A theoretical realisation towards human capital is relatively high in the knowledge intensive context, with the dominant logic that knowledge resides in the human mind (Bellinger *et al*., 2004). Pakistani think tanks are small organisations with a high reliance on limited human capital. In the developing context, the State's weak infrastructure and struggles with funding, mean these small organisations face multiple challenges in respect to structural capital. Relational capital is proving itself of high worth in Pakistani think tanks over a range of phenomena's, from international/national collaborations to inter-organisational relations.

##### **6.4.2.3.1. Human capital**

A higher reliance on human capital results from knowledge insensitivity (Rodriguez, 2013), whereas a consideration for human capital as a liability and machines as an asset is experienced within Pakistani think tank organisations. The knowledge culture of these organisations makes the situation relatively better and the researchers/scholars' highly knowledgeable community is given due respect. One reason behind this is the power of knowledge workers, as indicated by Alvesson (2004). A realisation surrounding HC is increasing in Pakistani TTs and is considered

the main component of the organisation, yet still, the centrality of the team, as emphasised by Nonaka (2007), is not yet achieved.

The human capital of Pakistani think tanks is mainly divided into two streams (1) researchers and (2) support/admin staff. Research and policy integration in think tanks (Nicander, 2016) demarcates the academic and political characteristics of human capital. Professionals from various backgrounds, such as journalism, bureaucracy and experienced people contribute towards Pakistani think tanks. The closeness of research and teaching (Britton, 1983) attracts the researchers of Pakistani TTs to teach. Another dimension of human capital in Pakistani think tanks, as suggested by Nicander (2016), is a combination of young and experienced personnel. Higher ratio of young energetic personnel was demanded by the insightful interviewees, which is aligned to Mendizabel's (2015) rationality that young people are the drivers of ideas.

Formal training and developmental opportunities are lacking in Pakistani think tanks, due to a lack of financial resources, available training opportunities, focus, planning and management. Pakistani TTs take it as credit that their ex-employees are in a higher position, and consider it their contribution to society that they developed them and today are performing their role in effective positions, including those relating to policy matters. Agostino *et al*. (2012) is in agreement that a lack of financial resources causes a lack of training and development. On the other hand, the human capital of Pakistani think tanks are underutilised due to a lack of knowledge tapping ability, leadership, management, and interest.

A knowledge gap is found in Pakistani think tanks due to the conflict of two streams of human capital having a negative impact on organisational performance. Agostino' *et al*. (2012) argument in parallel is the conflict of interest, since research staff are

inclined towards quality, whereas the administration staff are inclined towards quantity. Moreover, in Pakistani think tanks, contributing factors towards this conflict are self-centred leadership, differences of knowledge understandings, work load, organisational politics, low interaction between the two streams, and lack of resources.

6.4.2.3.2. **Structural capital**

The importance of structural capital for knowledge management and performance is pointed out by Kalseth and Cummings (2001). The sub-divisions of structural capital found to be distinct in Pakistani TTs are physical, technological, financial and library capital. Physical infrastructure presents the face values, attracts stakeholders and provide satisfaction to employees. Pakistani think tanks, with insufficient physical capital, are suffering in terms of their performance and their employees experience a degree of frustration. Many started believing that tangible capital is not essential, as performance is based on intangibles, similar to the argument presented by Yea-Wen *et al*. (2015).

However, organisations with better infrastructure are relatively comfortable and praise their facilities. The Pakistani think tank industry is comparatively better in terms of technological infrastructure then other sectors of the country. Fast technological developments pose another challenge for organisations that have an appropriate realisation, but suffer due to financial issues. Al-Fehaid's (2014) argument, that technological advancement has the least impact on research and development areas, is also suitable for Pakistani TTs. Another parallel argument is that technology could not make the people to use it (Lakomski, 2004), similar to the senior members of Pakistani think tanks who are not comfortable with the use of the latest technologies.

Financial capital holds particular importance in gaining other resources and its effectiveness for think tanks is obvious (Pop, 2012). Financial capital has an impact from the survival to the growth of an organisation, as in Pakistani TTs it restricts knowledge activity and also negatively impacts the quality of knowledge activities. Financial need is particularly realised capital and almost all participants raised points regarding its importance and lack in Pakistani think tanks.

6.4.2.3.3. **Relational capital**

Relational capital is relatively less realised in theory and practice as a knowledge management enabler. The literature lacks clarity about its boundaries and it usually overlaps with social capital, public relations and/or collaborations. The natural importance of the relationships between the survival and growth of any entity make it strategic, which is why knowledge based theory deals it (Grantt, 1997). A lack of the other two types of KM enablers (human and structural capital) in Pakistani think tanks highlights the importance of relational capital to conduct interdisciplinary research into social problems (Agostino *et al*., 2012). National and international collaborations are important for think tanks (Pop, 2012) and Pakistani TTs realise the importance in sharing the knowledge they possess. Another concern for Pakistani TTs in having these collaborations is to receive support for their structural and human capital. External relations in Pakistani think tanks are given due importance and are usually formalised, whereas, internal relations are highly informal, based on the tacit interaction of the human capital and primarily compose their activity and performance. On an individual basis, the realisation of the limited knowledge of an individual causes them to relate with other more knowledgeable personnel in the community (Ondari-Okemwa, 2006), with a view to gain further knowledge. Knowledge ideas and

relational capital are the two basic ingredients for the formation of an institute. The relationship between Pakistani think tanks and the policy circles is weak, but is present, with the prevailing view that ideas have their own ‘wheels’.

#### 6.4.2.4. **RQ-4: How does the relationship between knowledge management, organisational strategy and organisational performance differ across Pakistani think tanks?**

A swiftly changing environment, fast paced technology development and globalisation claims for knowledge management to leave arguments behind, which consider it a fad (Chourides *et al*., 2003). Furthermore, KM develops collaboration between individuals, which moves them towards an organisational strategy. An awareness of empirical research is in the nascent stages in Pakistani think tanks, where a consideration towards research accessibility has recently increased. Pakistani TTs face changes in their strategy usually with changes of leadership. Pakistani TTs wish to develop awareness among the public and policy circles by their knowledge. Perez (2012) discovered the relationship between KM and strategy, which is confirmed within Pakistani think tanks, where knowledge management comes along from their strategy initialisation to develop in a continuous manner.

Formal knowledge management requires a relatively higher structured approach of opening doors for improved performance measurement (Carrillo *et al*., 2003). The main outcomes (publications and seminars/conferences) of Pakistani TTs are formal KM activity; formality hinders KM activity (Crossan *et al*., 1999). Pakistani TTs measure their performance by quantifying the outcome (publications and seminars/conferences). Sufficient quality criteria for research outcomes lacks in Pakistani think tanks. Individual researchers’ performance is another relevant area

with an extreme margin for improvement and is usually viewed as organisational performance. However, the main belief is that intangibles cannot be accurately measured and so performance measures lacks. In Pakistani think tanks, informality is preferred, along with a lack of concern for performance measurement. Informal avenues of tacit knowledge sharing are additional to a conducive environment towards increasing performance. Knowledge accumulated in think tanks could improve the policy making process, but a lack of public accountability limits their performance (Perez, 2014).

Pakistani think tanks make an effort to fill knowledge gaps in the national scenario and could be categorised as knowledge management organisations according to Spender and Scherer (2007). The formation of Pakistani TTs' organisational strategy is a result of the specified KM activity of the founding members, using ideas/knowledge and relational capital, which is a knowledge management enabler. The outcome of Pakistani think tanks are knowledge products, resulting from knowledge intensive activity that forms their performance. KM benefits are determined by OP (Chong, 2006) but a lack of explicit KM program in Pakistani TT's, makes it difficult to gauge. This may not conclude the requirements of explicit KM programs in Pakistani TT organisations, since the benefits of informal tacit KM are found to be obvious. The policy suggestions of Pakistani TTs are rarely heard by the policy circles, but that does not reduce the motivation of these organisations to fill the knowledge gap. The indirect impact of Pakistani think tanks cannot be ignored, as they are creating an awareness among society and state.

## 6.5. **Synthesizing key findings and conclusions**

Moving from the conventional management concepts of the industrial era towards knowledge economies, management has taken the shape of knowledge management. KM implies continuous change, continuous improvement and continuous learning. Knowledge resource primarily reside with humans, who develop through continuous learning. Supporting workers' development through management to achieve performance goals is considered KM. So, knowledge management, along with the conventional management have inbuilt performance targets.

## 6.6. **Research contribution**

This section presents summary of the contribution of this study, which is divided into sub-sections of theoretical contribution, methodological contribution, contextual contribution, research implications and a section summary.

### 6.6.1. **Theoretical contribution**

The three main constructs of the study of knowledge management, organisational strategy and organisational performance are three distinct sub-fields of organisational sciences. It was a challenge to handle and present three gigantic constructs, with their multiple sub-dimensions, together. The requirement of considering the three interlinked worlds at once justifies the general, rather than the specific form of the constructs. By contributing towards the relationship of KM, OS and OP, the study has opened up a new discussion in the organisational sciences literature.

The present study has contributed towards the on-going debate in the literature (Boote and Beile, 2005) of knowledge management, by presenting it in a unique and specified combination. KM literature faces several internal and external complexities. As much

as the fame of KM is increasing (Ma and Yu, 2010), so are the opponents of the field. Two reasons behind this opposition are the complexity and lack of clarity of its impact. KM researchers are required to consider conveying clarity and simplification within the field. Another requirement is to discover the benefits and impacts on their performance. The present study is contributing explanation to simplify the complexities surrounding KM, as well as providing details about its impact on performance.

The present study qualifies the criteria for a good literature review, as analysed by Boote and Beile (2005). Summarising the trends, multidisciplinary approaches and multidimensional nature of knowledge management are the achievements of the present study. Distinguishing between the formal and informal aspects of KM and discussing the literature accordingly is another addition of value. The continuous adjustment of the three main constructs aligning to each other according to the environment is another distinction that is theoretically achieved by the research. The study claims for the natural existence of knowledge management in any context, with the presence of knowledge being independent of its explicit implementation and/or awareness. The study differentiates between knowledge resources and knowledge management enablers, highlighting the importance of cultural values and norms, knowledgeable leadership, conducive environment and multilingual skills at the knowledge resources level. Where, addition of multilingual skills is the key contribution. At the level of knowledge management enablers, due consideration for relational capital is of additional value. Emphasis on the tacit informal practice, lying as the nucleus of knowledge management and encouraging relational capital is another impactful contribution.

### 6.6.2. **Methodological contribution**

The methods Choice is a step between objective formulation and conducting primary research, which link research topic to questions (Buchanan and Bryman, 2007). Buchanan and Bryman argued that a joint concern for several disciplines associated with organisational studies also serves the cause of paradigmatic diversity and methodological innovation. Distinctions in qualitative, inductive logic and case study research is hard to define, whereas the theory building process from cases is also grey (Eisenhardt, 1989). The present thesis presented large scale empirical evidence, which is rare in qualitative studies. Subjective interaction with 142 personnel over 195 interviews, meetings and discussions, produced an enormous amount of textual data. Rather than the interpretivist or social constructionist approach, the critical realist view is considered most appropriate for the present research.

### 6.6.3. **Contextual contribution**

The modern concept of knowledge management is new for a developing country such as Pakistan, and recently a few studies have been conducted in the country's specific context. Still, the subject of KM is not properly introduced in educational institutions, and KM departments have not been formed in the corporations. Hardly any KM responsible posts have been introduced in formal organisations. Presenting an empirical investigation of KM in the Pakistani context is the highlighted contribution of the study. For its continuous existence, a knowledge intensive research organisation of such a nature requires knowledge management to be in place.

The recent past has observed a massive growth in think tank organisations around the world and think tanks are becoming more well known in all walks of life, from global economies to local affairs. A general awareness of TTs is due to their influential and

highly intensive position on current affairs. TTs began forming in the 18th century in the developed world, but received little attention from organisational sciences research. The present study is an attempt to discuss think tank organisations with a special focus on an organisational management perspective.

Both in developing, as well as developed countries, concern is growing for education and human development, where we are transforming into a knowledge society with a mix of individual independence (Goux-Baudiment, 2009). Pakistani think tanks have observed massive growth in the last decade (Zaidi, 2013) but still lack the attention of the government, society, corporate sector, academia and other stake holders. In the past couple of years, a few newspapers and magazine articles, and some conceptual journal articles appeared relevant to TTs in Pakistan. One study conducted by one of the research participants organised Pakistan's TTs into different categories and gathered several features of the organisation, however this remains unpublished. The thesis is inaugural research into Pakistani think tank organisations.

### 6.6.4. **Research implications**

**Theoretical**

- The alignment of OS and OP with KM should be tested
- Further in-depth study of:
  - Relational capital
  - Levels of KM awareness
  - Levels of KM informality
  - Balance of various knowledge resources
  - Impact of the above in comparison to different cultures

**Practical**

- For Pakistani think tanks:
  - Value knowledge resources
  - Increase KM awareness
  - Consider formal KM activities
- Generally for think tanks
  - Inculcate multi-lingual skills
  - Adopt positive cultural values and norms
  - Include KM aspects in leadership training
  - Create a conducive environment
  - Focus on relational capital
  - Preserve informality

Figure 6-1 Theoretical and practical implications

Management, a field of applied science, demands the findings to be shaped into practical guidelines (Bamford, 2008). The theoretical and practical suggestions are summarised in figure 6.1, which provides specific suggestions for Pakistani think tanks and think tanks worldwide.

### 6.6.5. **Section Summary**

Table 6-1 Research contribution

| | |
|---|---|
| Context Related | This study contributes mainly towards two dimensions. First, it contributes towards the context of think tanks, since scarce literature exists about think tank organisations in regards to an organisational, management and performance perspective. Secondly, the study also contributes to the literature of developing countries in Asia, and specifically Pakistan, in regards to knowledge management, knowledge intensive organisations, organisational strategy and organisational performance. |
| Theory Related | The key theoretical contribution of the study is the formulation of the knowledge management model for Pakistani think tanks. The model presents the concurrent relationship of KM-OS-OP and brings in further detail regarding the relationship between KM-OP and KM-OS. The study also highlights the aspects of knowledge management awareness, informal knowledge management practices, emphasized the role of relational capital as a knowledge management enabler and the addition of multilingual skills to knowledge resources. |
| Methods Related | Qualitative case studies of 8 Pakistani think tanks in respect of their knowledge management is the study's methodological contribution, from a critical realist perspective. Significant data set, verbatim transcription and manual thematic analysis are an exclusive achievement. |
| Practical | During the field work, interviewees and their organisations came to understand relevant matters, in terms of their organisations, processes, and capabilities. Providing answers to the interviewer and participating in research caused them to be introspective and update/redo their good practices. Questions regarding KM-OP led them to think about the related options for them and what they can do for the implementation of performance enhancement. They took advantage of the researcher's expertise in organisational insight and subject knowledge. Participants gained a sense of prestige and judged their position in the international market, as a researcher from the UK had been visiting them. Participating in the research and being published will provide them with promotion and free marketing.<br>Think tanks could adopt the presented model by considering knowledge management as central to their organisational strategy and performance. The thesis will make them realise the value of knowledge resources they have, and giving them due recognition could enhance their experience and achievements. Consciousness towards informal knowledge management practices and a focus on relational capital could be beneficial for their knowledge management. |

## 6.7. **Research Impact**

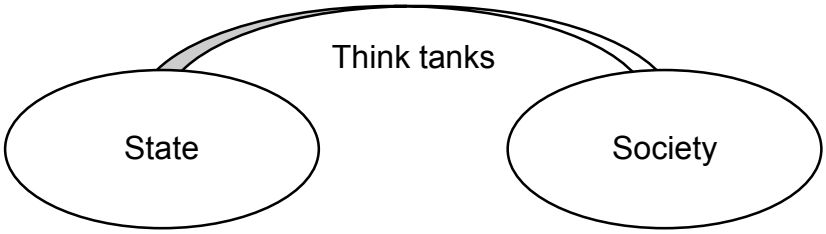


Figure 6-2 Think tanks - A bridge between state and society

Knowledge generation and exploitation is an important factor for economic growth and development, hence achieving countries' knowledge goals (Chong, 2006). Think tanks serve the purpose of exploiting and generating knowledge for the country. TT organisations are considered by McGann (2016) to bridge the gap between knowledge and policy. Pakistani TTs can build a better national image, which is highly ignored at this point of time. The research directly impacts 8 participating Pakistani TTs, located in the capital city of Pakistan - Islamabad, which is of strategic importance globally speaking. Their major vehicles to transfer researched policy suggestions to the state are individuals who have shared roles in government and these organisations. They take credit for the impact made on governmental policies by their research and also on the micro level through shaping people's perceptions. Highly financially transparent TTs can be found in Pakistan (Transparify, 2015). However, in the five-star rating of think tanks, only one TT from Pakistan is listed (Transparify, 2016). Pakistani TTs are financially challenged, whereas countries with higher TT expenditures are more economically free than those with less TT expenditures (Leeson et.al, 2012). TTs are the centre of KM, with an impact on nation and society, and the OP of a TT rests with the ability of KM. A TT needs to be dynamic in contributing towards changes in society, the nation and mankind. According to Nicander (2016), the success of a TT is to influence the policy process, which begins with identifying problem and ends with

policy implementation. Pakistani TTs have little influence on policy implementation, but are able to identify issues, generate debates, inform policy circles and create public awareness. Furthermore, Nicander's (2016) argument is that a think tank's impact is more through indirect methods and intangible outcome. Better knowledge management could result in better think tank organisations, which could have a higher level impact on the related world. However, it should remain salient that the purpose of the study is not to ascertain the impact of think tanks in Pakistan, but to find out the knowledge management practices existing within the think tanks.

### 6.7.1. **Impact on researcher**

Management research often inherits procedures from medical research or psychology (Tranfield *et al*., 2003) but regarding the former, the researcher could be the victim, since they are interviewing more authoritative people. This study had a positive impact on the researcher in that the people praised the researcher as a young courageous girl who had embraced the challenge in doing this research for their benefit. The researcher received offers to join them and they hoped that this research might resolve a few of their problems.

## 6.8. **Research Limitations**

Each stage of the research has distinct strengths and limitations and it is the authors belief that it should be admitted that the outcome is a combination of both. The key phases of the literature review, field work, data analysis and writing, each had their own specific nature. The limitation of the literature review has the dimensions of the authors perceptions and limited understanding, time limitations, and specified access to the literature. Methodological choices follow the hierarchy of the author's philosophical stance, ontological and epistemological choices, methodological and

methods choices. Theories are not universal truths, rather they are developed through historical content and should be evaluated through the context (Zaman, 2016). A limitation in a conceptual leap exists due to the difficulty in dealing with tacit-ness depending on the codification expertise (Klag and Langley, 2013). Klag and Langley argue that a conceptual leap originates from abduction on a continual basis, whereas the study has only adopted the inductive approach. A lack of multi-methods limits knowledge creation (von Maravic, 2012). One of the limitations of the current research study is its confinement to a single management theory of KBV, and other theories such as institutional theory, or a combination of theories, could have opened further windows towards knowledge. The present study has only viewed knowledge management enablers as the receptacle of knowledge management, leaving the question of aiding and refraining factors for a future study. The study's findings are mainly formed from subjective interviews and the interviewee's perception, so, there is the chance of self-reporting bias, specifically in regards to performance measures, as argued by Su *et al.* (2016). Although the data was triangulated with observations and document analysis, still it is suggested that a future study should come up with more objective measures. Limitations of time, finance and physical access to the context of study all played their part. There could be several choices of methods for the data analysis, and the single researcher and time limitations cannot be ignored.

The following are some additional important limitations. (1) Limited time and finances in general and specifically for the field work, a limited number of cases confined to one geographical area of a developing country, limited organisational access, limited methods of data collection and analysis, and being a single researcher, are some of the general limitations faced by the study. (2) The involvement of perceptions from

informants and the researcher. (3) The literature review is limited to English resources. Whilst the presentation is in English, the language neither of the context under study nor of the researcher, also had an impact. (4) Limited philosophical perspectives, specifically for the formation of interpretative stories from the qualitative data. (5) Voluminous data and the chance of getting lost in the data analysis processes. (6) Use of a single theoretical lens i.e. knowledge based view. (7) The three key constructs - knowledge management, organisational strategy and organisational performance are wide areas of study. Dealing with the three ideas and on a whole avoiding any specific dimension of the construct was in itself a challenge. Specific sub-areas of each construct may involve further detail, which had not been studied in depth. (8) The abstractness of knowledge posed challenges bi-directionally, as (i) the subject matter is based on 'knowledge and knowledge management', (ii) the study in itself is dealing with knowledge. (9) The complexity of the knowledge management field and overlapping use of terminologies poses a limitation for understanding and presenting the theory. For example, consider the definition of knowledge - knowledge management could vary from individual to individual.

The limitations of the available literature, considering the under-recognition of knowledge management journals, and confining the research to specified aspects of knowledge and knowledge management might also have had impact on the outcome of the current study.

During the writing phase, one major limitation was the set structure, the defined norms of the field and the specific academic setup. The first challenge for writing the research is the difficulty to explicate the tacit knowledge (c.f. Cowan *et al*., 2000) and this case becomes more complicated when the research is focused on qualitative forms. Writing

in a language other than one's mother tongue, for which expertise has been gained over years, was itself a challenge. Limited use of terminologies and specified metaphors might also pose a limitation in the thinking of the reader, contrary to Bruce's (1994) idea as explained by Boote and Beile (2005). It should be admitted that the whole document has not been written in one go, but over many years, and is also a reflection of the researcher's developmental stages. With the iterative nature of research, effort is required to present it in a defined systematic and structured way. The literature, context, scholarly guidance, and supervisory support, all naturally pose a limitation for ideas in the limitless horizon of the research universe.

## 6.9. **Future recommendations**

No study can be considered the final verdict and the participants did express the wish to extend it. Future improvements of an idea are a way to keep it alive. This study, with the initial vision of improving specified think tank organisations, has realised that its contribution is a 'drop in the sea'. Several dimensions regarding theory, methodology and context could be further explored. It is recommended that future studies explore the relationship between knowledge management, organisational strategy and performance, using the lens of a strategy tripod, including other theoretical lenses alongside the KBV. The specific choice of components of knowledge resources and knowledge management enablers, along with their distinction could have limited impact, which could be further extended. Future studies could also explore taking an abductive approach, rather than a single inductive approach. Moreover, the use of mixed methods might also be considered for future study. The study could be extended to other geographic areas than Islamabad and Pakistan, and could more specifically compare other developing and similar cultural zones. The literature has

presented the differences between organisation sizes in respect to their knowledge management, as found with the formality of organisations. A comparison of different sized TTs should also be made, taking account their formality and hierarchical structure and knowledge management implementations. Cultural norms, multilingual skills, leadership and a conducive environment, proved to be the strength of Pakistani TTs, and could be adopted by think tanks around the world, after further research.

More specifically, empirical theory testing research is highly recommended for Pakistani think tanks on a wider scale, with precise facts. A convenient extension for the research is to perform a content analysis, rather than a thematic analysis on the same set of data, with a view to achieve improved quantified results. To explore the downfall of Pakistani organisational leadership and to ascertain measures to regain their strength is highly important for Pakistani organisations.

Multilingual skills have been established as an important factor for TT organisations, as well as for KM, which are measured to retain their associated strength and developing it in the naïve settings should gain the commitment of business and management sciences. Relational capital was found to be most important for the success of KM and OP, and thought to be more deeply observed, especially considering how other organisations could yield the benefits. A balance of formal and informal KM practices at different levels of knowledge management adoption (considering the organisational nature) is a necessary investigation. Further research, with a more specific focus on the brands of knowledge among the Pakistani research community, is essential for the progression of the research culture in the country.

A content analysis on the extensive data in hand might bring forth some further insights into the topic, with the providence of increased objectivity.

The study could be extended to other geographic areas of Pakistan and other countries.

The study could be extended to governmental and profit-oriented organisations.

The study could be extended to large sized TTs.

A comparison between TTs of other sizes and natures could be made.

The study could be extended to a context aware of KM.

Extending the study in terms of individual KM practices and strategies, their formality level, level of consciousness and types of knowledge could be considered.

This research is not focused on policy dynamics in Pakistan, however it is a relevant topic and a separate study should be conducted for it.

The dimensions of KM enablers and KRs as specified in Pakistani TTs may also be individually exploited in detail.

A theory testing quantitative study may also be conducted to test the relationship of OS-KM-OP.

The study could be extended using multiple theoretical lenses, such as institutional theory or the strategy tripod scheme.

Mixed methodology, triangulation and an abductive approach could also be beneficial for the theory presented.

Figure 6-3 Future recommendations

## 6.10. **Learning experience**

The primary lesson learned is a realisation of consistency skills. Consistency is challenging and comes with the inner nature of a person's character, which relates to the researcher's temperament. Further to the possession of these skills one's realisation towards their strength is necessary to keep motivation. Thinking with patience is the second key lesson learned during the PhD journey. Thinking demands time, often equal to reading, writing, training or conducting practical work. Months of

effort becomes fruitful with the connection of thinking. Once one learns ‘how to think’ objectivity begins appearing in all other thinking matters of life, ranging from professional areas to personal ones. Knowing one’s own self and understanding one’s own nature is the biggest achievement for any individual, which becomes more vivid in the research journey, taking the individual to a level of self-actualisation, though never actually accomplishing it. An individual doing research with their whole heart will fall in love with it, ready to face any challenges and difficulties in the way.

## 6.11. **Chapter Summary**

This chapter has summarised the whole project, along with summarising key points from other chapters. It has also presented the researcher’s reflection and experience gained throughout the project. While concluding the project, the chapter has briefly discussed each research question addressed in the study. The research contributions, limitations, impacts, suggestions and learning experiences have also been addressed.

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# Appendices

## Appendix A Letter for research participation consent

University of HUDDERSFIELD

19th June, 2013

**REF: Request for Consent about Research Participation**

Dear Sir/Madam,

I am writing to request your consent to include your Think Tank as part of my PhD research. I am currently studying as a PhD Research student at the University of Huddersfield, UK under the supervision of Professor David Bamford and Doctor David Higgins.

The preliminary title of my research/thesis is **'Knowledge Management and Organisational Learning on Pakistani Think Tanks'.** This research will not only promote your Think Tank but will also help to understand the concepts of Knowledge Management in specific context of your organization.

I would also like to mention that you will be provided with a copy of the completed thesis which will surely enable you to draw on some research suggestions to further improve your organisation. At the moment I am focusing on my literature review and plan to conduct my data collection early next year (2014). Therefore, I will inform you in advance regarding my intended travel to Pakistan for data collection at your organisation. I am also enclosing my main supervisor's written consent/approval regarding my research plans. If you feel the need to contact my supervisor regarding this, you can contact him via e-mail David.Bamford@hud.ac.uk.

Could I please request you to reply with your consent at your earliest convenience. Your kind co-operation will be much appreciated.

If you have any questions or queries concerning this research study you can contact me through e-mail or the phone numbers provided below. Thanking you in anticipation and looking forward to your reply.

Yours faithfully,

Sammar Javed
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University of Huddersfield, UK
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Phone no. 01484 471441
Fax no: 0044 1484473148
Mobile no. 0044-7405907075

## Appendix B Letter to request research visit

University of HUDDERSFIELD

Feb 25, 2014

**REF: Request for Research Visit**

Dear Sir/Madam,

In continuation of your consent for research participation I am writing to request organizational appointments to conduct research in your Think Tank as part of my PhD research project. I am currently a second year candidate of PhD at the University Of Huddersfield, UK under the supervision of Professor David Bamford and Doctor David Higgins.

As you are aware my thesis title is '**Knowledge Management and Organisational Learning in Pakistani Think Tanks'.** The research will not only serve as opportunity to promote your Think Tank but will also contribute to improve your organizational practices. Equally I had already agreed that you will be provided a copy of completed thesis to take advantage of the research suggestions.

I am planning to visit your Think Tank for a week during March/April 2014. During the week I will be following your office timings to conduct interviews, attending meetings, collecting documents and taking observations. I need to conduct at least 6-7 interviews of your personnel's for about an hour. Along that I need to attend 2-3 managerial meetings, take observations of working style and communication pattern. I might also need some of your documentation to understand 'what and how' your Think Tank works. I am enclosing my main supervisor's written consent/approval regarding my field work. If you feel the need to contact my supervisor regarding this, you can contact him via e-mail David.Bamford@hud.ac.uk.

Could I please request you to reply with your consent at your earliest convenience. Your kind co-operation will be much appreciated.

If you have any questions or queries concerning this research study you can contact me through e-mail or the phone numbers provided below. Thanking you in anticipation and looking forward to your reply.

Yours faithfully,

Sammar Javed
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## Appendix C Intangible asset evaluation

**Part - II**

| S. No | Points needing attention | Remarks by Immediate officer | Remarks, if any, by the Director-General |
|---|---|---|---|
| 1. | **Intelligence:** Is the officer has excellent comprehension or slow? | | |
| 2. | **Confidence and will power:** Is the officer exceptionally confident and or uncertain and hesitant? | | |
| 3. | **Reliability under Pressure:** Is the officer calm and exceptionally reliable at all times or confused and easily flustered even under normal pressure? | | |
| 4. | **Ability to decide routine matters:** Whether logical and decisive OR indecisive: vacillating? | | |
| 5. | Has the Officer proved himself/herself able to do the work by showing due diligence and industry? What is his/her capacity for getting work out of his/her subordinates? | | |
| 6. | Does he/she maintain good control over the staff working under him/her? | | |
| 7. | Does he/she keep on good terms with other Officers? | | |
| 8. | Has he/she a sound knowledge of Rules & Regulations pertaining to work entrusted to him/her? | | |
| 9. | Has the Officer maintained a reputation for honesty during the period under report? | | |
| 10. | Overall grading: Very Good, Good, Average and Below Average | | |

Source: Personnel performance evaluation form, Institute of Strategic Studies, Islamabad.

**Appendix D List of Islamabad, Pakistan based think tanks**

Islamabad (capital city)

| | | |
|---|---|---|
| 1. | Area Study Centre for Africa, North & South America Quaid-i-Azam University | 1 |
| 2. | Institute of Policy Studies (IPS), Nasr Chambers, Block 19, Markaz F-7 | 4 |
| 3. | Institute of Regional Studies (IRS), House 12, Street 84, G-6/4 | 8 |
| 4. | Institute of Strategic Studies (ISS), Sector F-5/2 | 12 |
| 5. | Islamabad Council of World Affairs (ICWA), House 47, Street 27, Sector F- 6/2 | 15 |
| 6. | Islamabad Policy Research Institute (IPRI), House 2, Street 15, Main Margalla Road, F-7/2 | 17 |
| 7. | Mahboobul Haq Human Development Centre (MHHDC), 42, Embassy Road, G-6/3 | 19 |
| 8. | National Institute of Historical and Cultural Research (NIHCR), Centre of Excellence, Quaid-i-Azam University, House 605, Street 29, G-10/2 | 21 |
| 9. | National Institute of Pakistan Studies, Quaid-i-Azam University | 23 |
| 10. | Pakistan Institute of Development Economics (PIDE), Quaid-i-Azam University Campus | 26 |
| 11. | Pakistan Security and Development Association (PASDA), House Street 3, F-7/3 | 35 |
| 12. | Sustainable Development Policy Institute (SDPI), 3, UN Boulevard, Diplomatic Enclave 1, G-5 | 37 |

Source: Directory of Pakistani think tanks (Haq and Ali, 2004)

## Appendix E Ms Excel thematic coding metrics

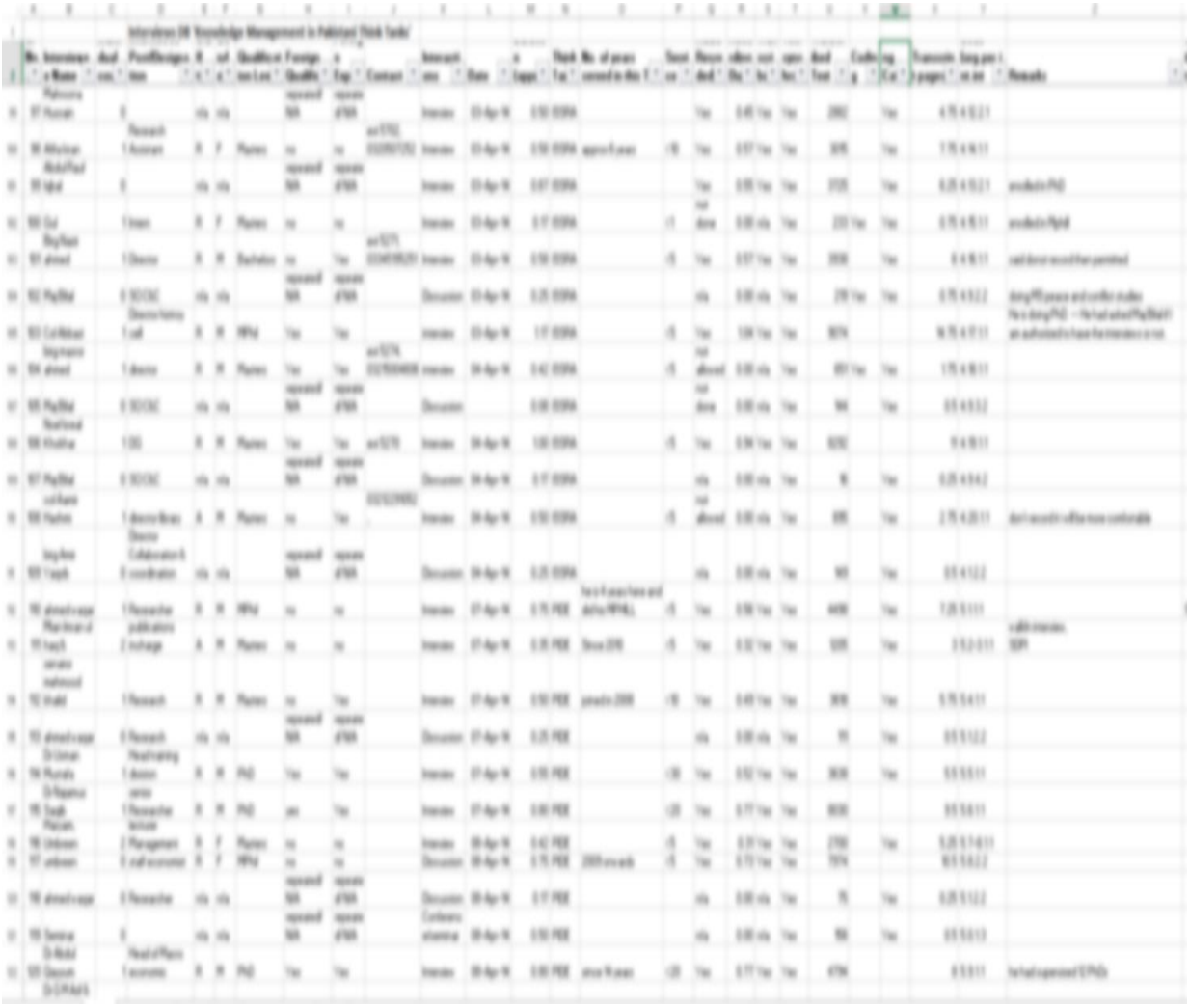
(The image is shared with the purpose of presenting the thematic analysis process using Ms Excel. However, the information in the image has been blurred to keep the anonymity and confidentiality of the participant).

## Appendix F Ms Excel thematic coding frame work

| B | C | D | E | F |
|---|---|---|---|---|
| Resources | | | | |
| | | | Support Staff | procedural framework |
| | | | | admin people are policy implementer |
| | | Finances | | Lack of Finances 2 |
| | | Projects | | Lack of Projects |
| | | | | Lack of Project Management |
| | | | | seminar planning meeting |
| | | | | printing press takes work from governement & IIU |
| | | Material Resources | | Lack of Resources 2 |
| | | | | Electricity problem |
| | | | | Printing Press |
| | | Data resources | | images & master files by graphic designer |
| | | | | custoizing images with Islamic touch |
| | | | | lack of open source data |
| | | Language resources | | urdu language have pleasure in it |
| | | | | knowledge loss by language conversion |
| | | | | |
| | | | | 4 departments |
| | | library | | subject specific library |
| | | | | Lack of Governmental concern since many tenures |
| | | Envirnoment | Technology friendly | Less friendly envirnoment for new technology |
| | | | | language sensitive |
| | | | | multilingual culture |
| | | | | effort to exapnd |
| | | | | more time spent in the organization more is the understanding |
| | | | | clearly defined tasks |
| | | | | understanding of the task |
| | | | | confident & happy to do the task |
| | | | | knowledge based support tasks |

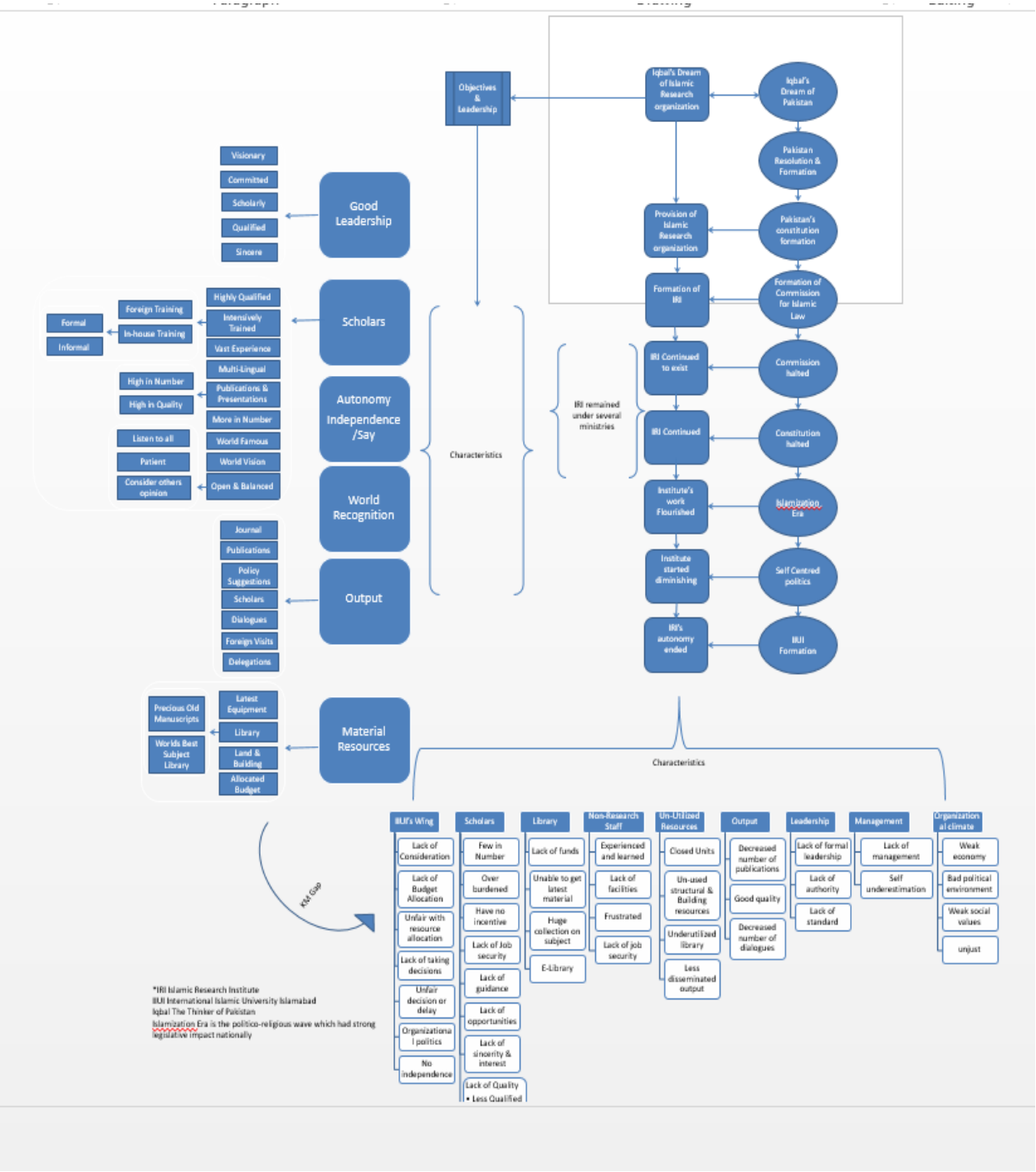
coding framework

## Appendix G Ms Excel database for data collation



(The image is shared with the purpose of presenting the data collation process using Ms Excel. However, the information in the image has been blurred to keep the anonymity and confidentiality of the participant).

**Appendix H Initial concept map for a participant organisation resulting from initial coding**




(The image is shared with the purpose of presenting the analysis process using codes as concept map for a participant organisation. However, the information in the image has been blurred to keep the anonymity and confidentiality of the case organisation).

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